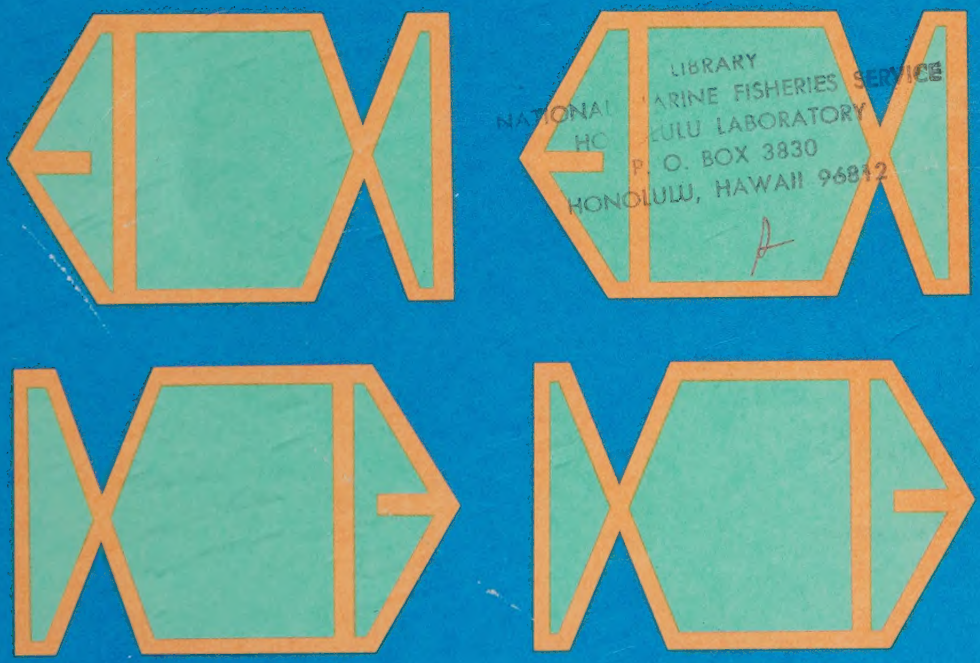
S/13/13 1981

FISHERIES STATISTICS OF JAPAN 1981



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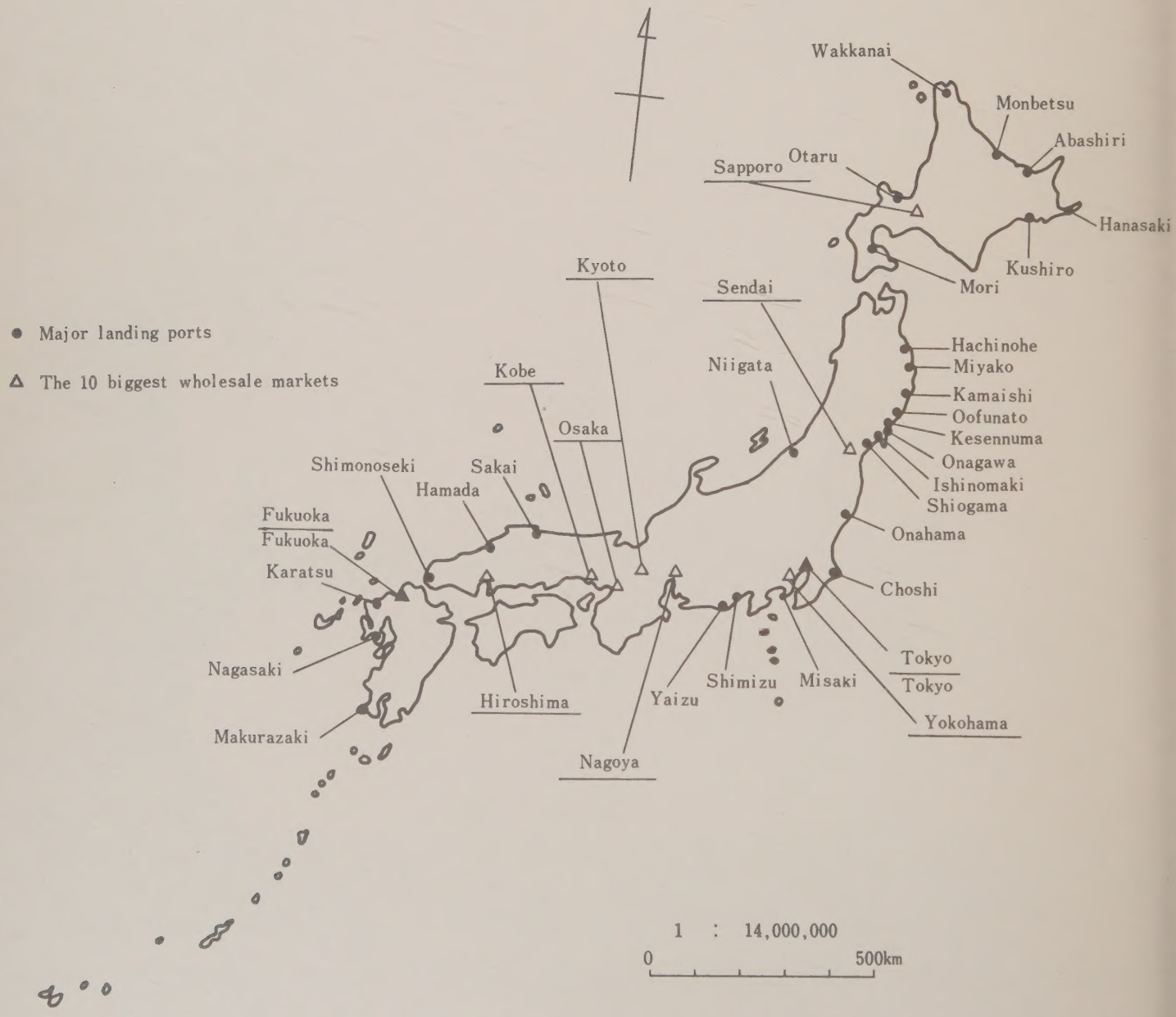
MAJOR LANDING PORTS AND THE 10 BIGGEST WHOLESALE MARKETS IN JAPAN



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FISHERIES STATISTICS OF JAPAN 1981

STATISTICS AND INFORMATION DEPARTMENT
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FOREWORD

The bulletin "Fisheries Statistics of Japan" contains major statistical tables on fishery structure, production, marketing and economy which are conducted by the government of Japan (Statistics and Information Department, The Ministry of Agriculture, Forestry and Fisheries), and it has been published yearly since 1963.

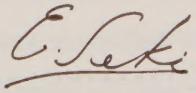
Recently, Japanese fisheries lie under very severe circumstances; The restrictions of fishing operation caused by establishing the "200 sea mile fishing zone" and the increased cost of fishing operation resulted from the high price of fuel.

On the other hand, consumption of fishery products has been stagnant, because of high price of fisheries commondity and depressed house-hold expenditure.

Under such circumstances, in order to keep stable supply of fishery products which represent important protine resources in nation's nutrition, our government promotes cultivation and effective utilization of fisheries resources in the water around Japan and makes an effort to keep overseas fishing ground through diplomacy and international co-operation in the field of fisheries.

Lastly we hope this bulletin will benefit our readers to understand the situation of the current Japanese fishery.

March, 1983



EIJI SEKI
Director,
Statistics and Information Department
Ministry of Agriculture, Forestry and Fisheries
Government of Japan

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Table No. III-5 ~ 7	Bureau of Customs, Ministry of Finance
Table No. III-8	Minister's Secretariat Ministry of Agriculture, Forestry and Fisheries
Table No. III-9,10	Bureau of Statistics Office of the Prime Minister
Reference Table 1, 2	F. A. O.

2 Period of inquisition

As a principle, the statistics in this bulletin are inquired by the calender year but the figures of the whaling in the Antarctic Ocean are given for the "Whaling year" (from Nov. 1978 to Mar. 1979)

3 Symbols

The following symbols are used in this publication:

[0] means "Less than the unit amount"

[---] means "Unknown or not available"

[-] means "No record"

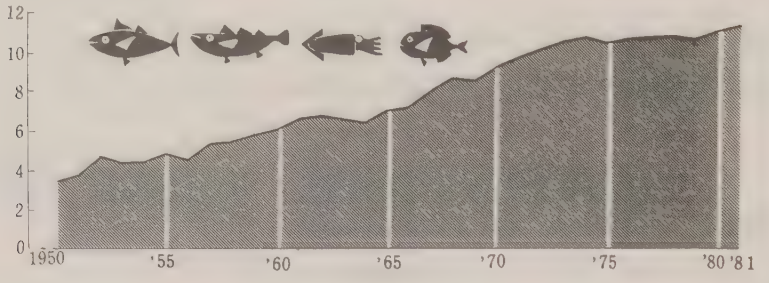
[Δ] means "Minus"

STATISTICAL CHARTS

I. FISHERY PRODUCTION

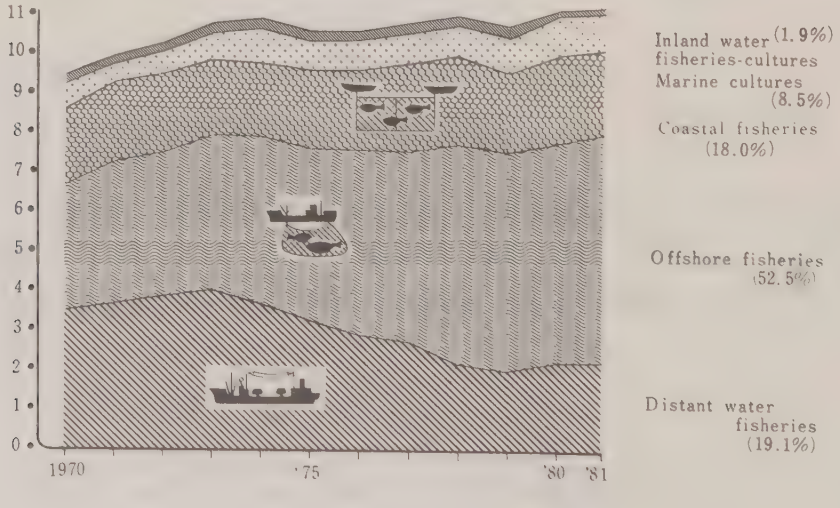
1. Annual Trend of Total Catch, 1950~1981

(Million metric tons)

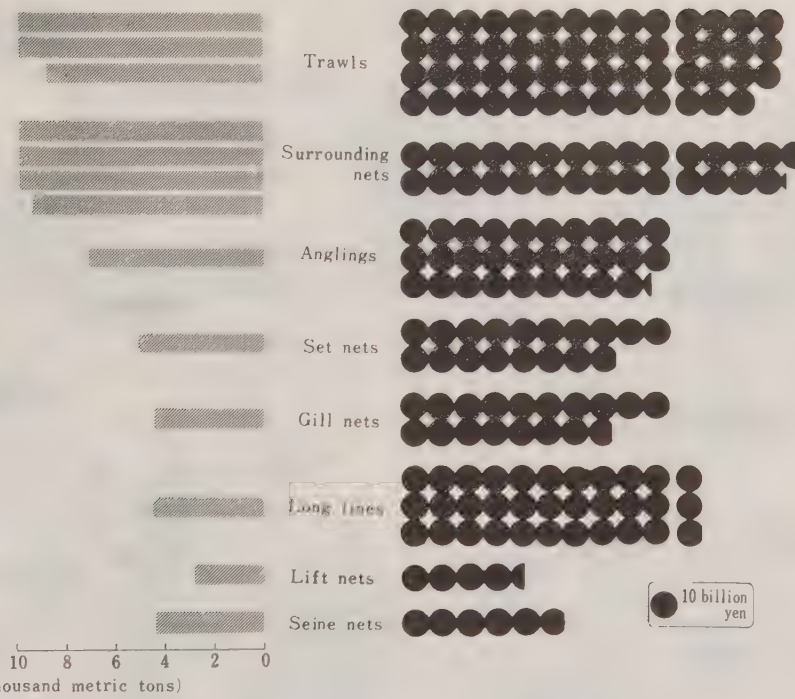


2. Total Catch by Type of Fisheries, 1970~1981

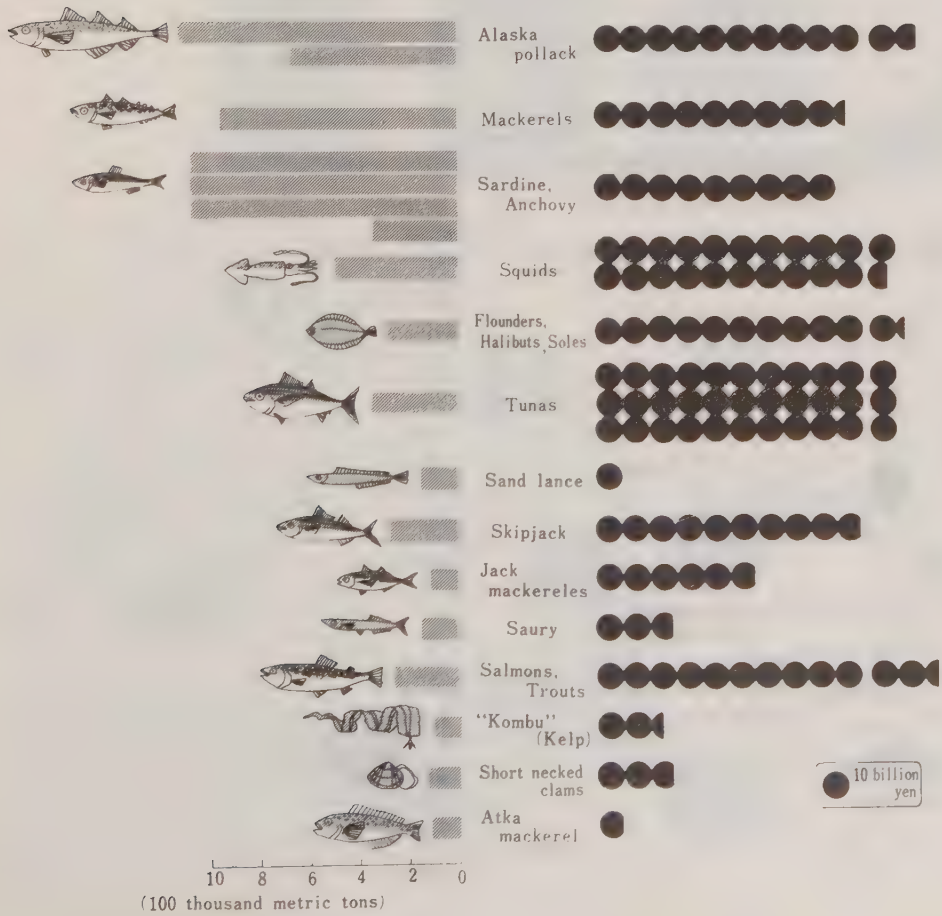
(Million metric tons)



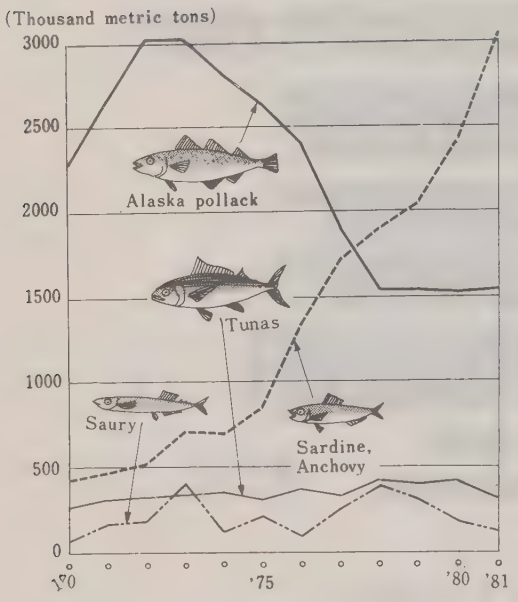
3 Catch by Type of Fishery, 1981

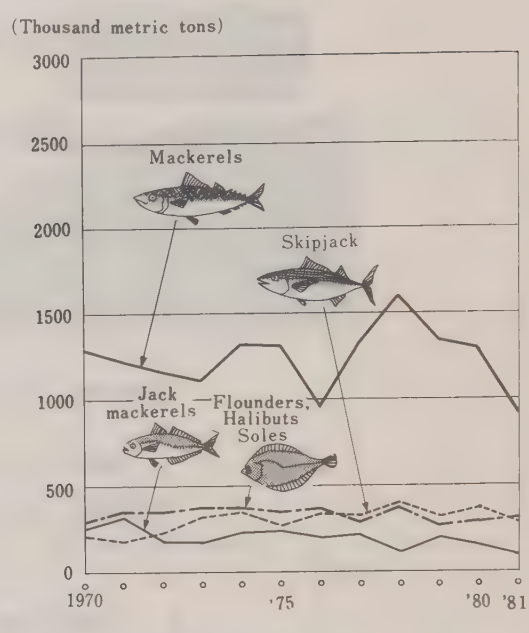


4 Catch by Major Fish, 1981

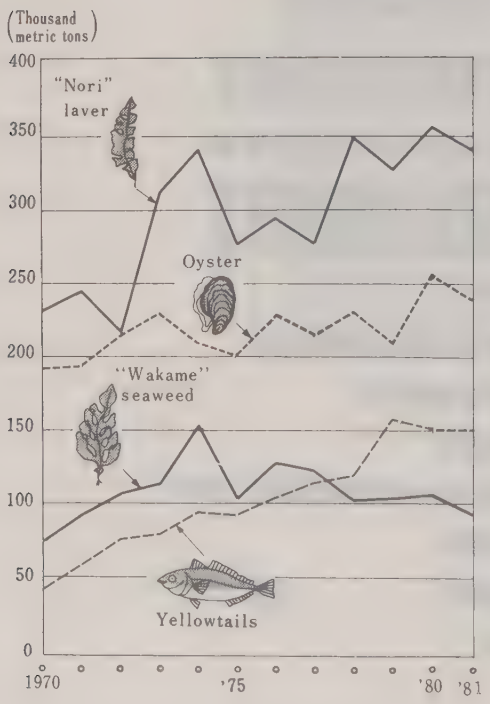


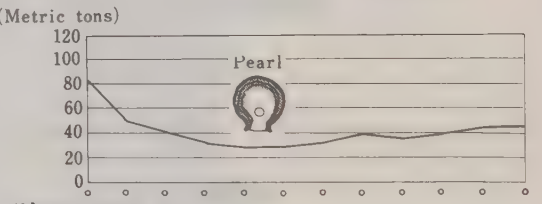
5 Catch by Major Fish, 1970~1981

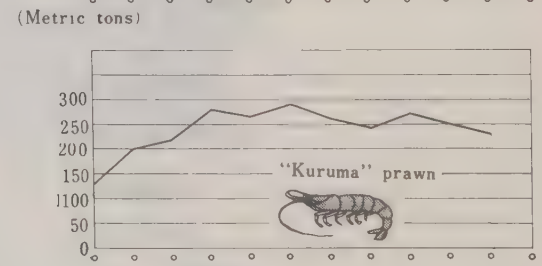


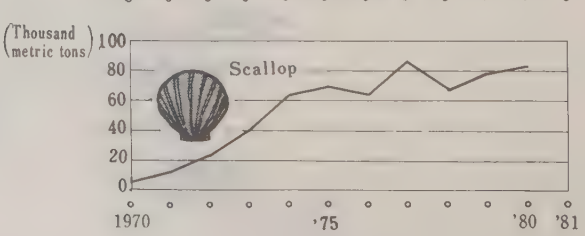


6 Yield of Marine Cultures, 1970~1981

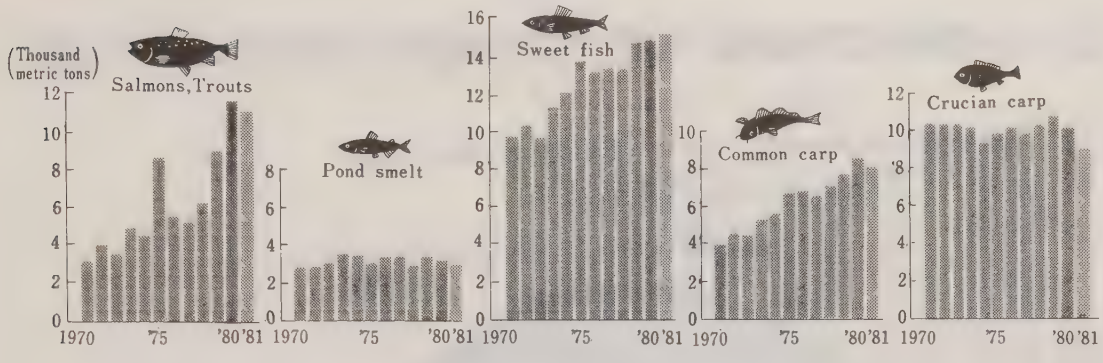




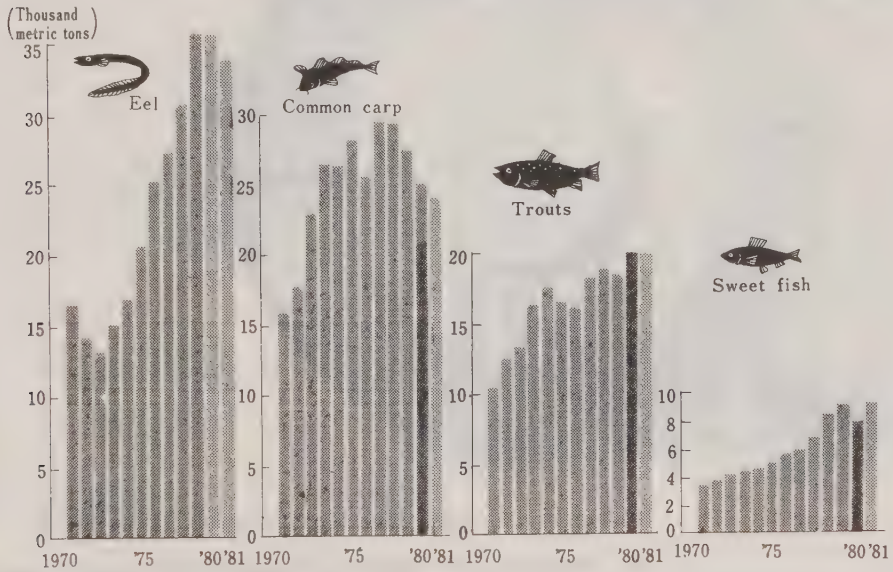




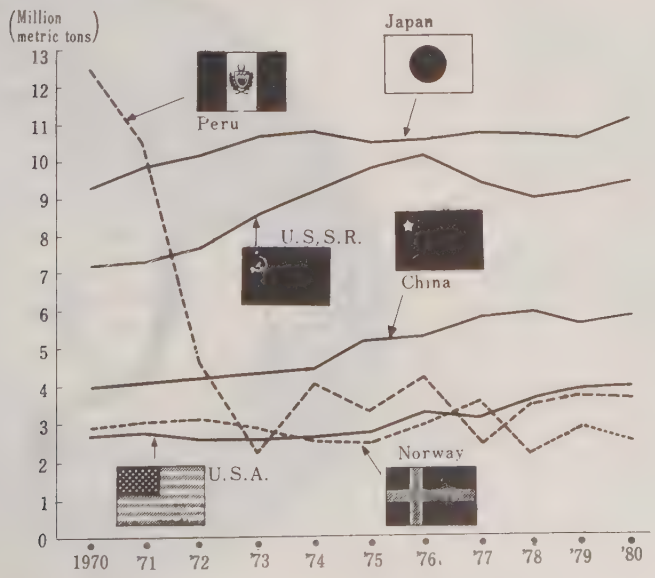
7 Catch of Major Inland Water Fish, 1970～1981



8 Yield of Major Inland Water Culture Fish, 1970～1981

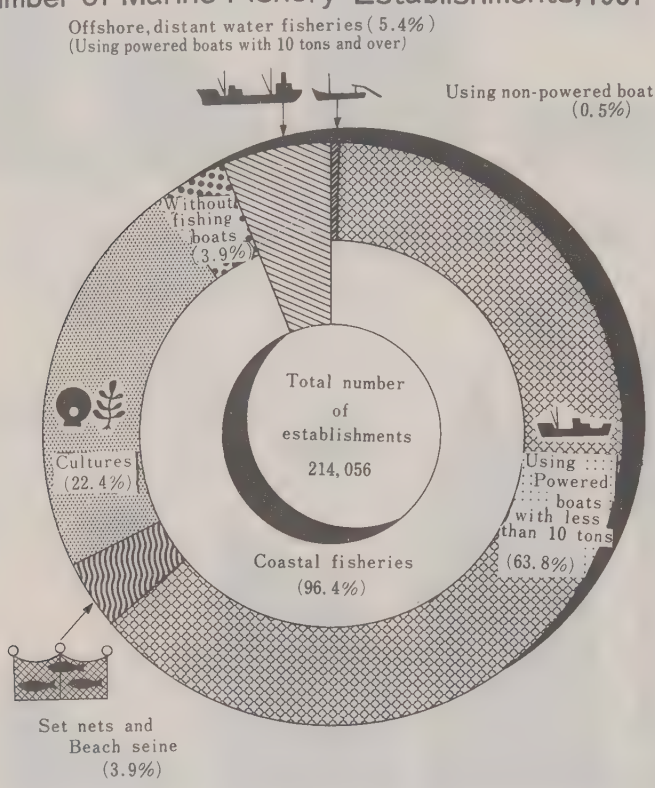


9 Catch of the World by Countries, 1970～1980

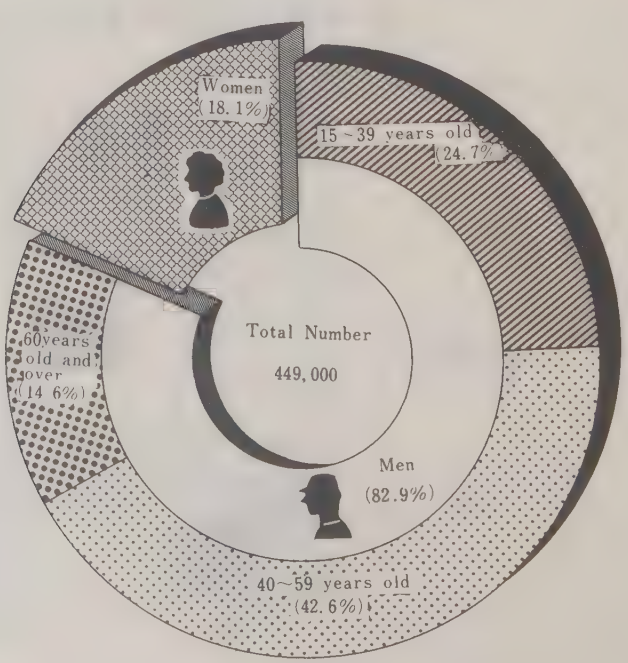


II STRUCTURE OF FISHERY PRODUCTION

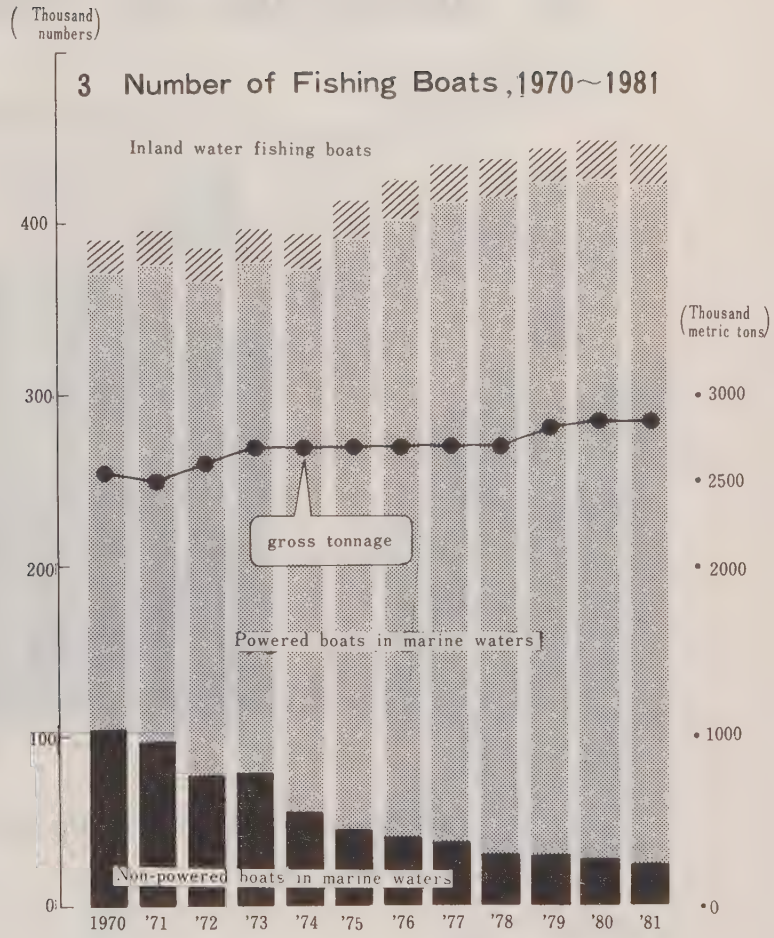
1 Number of Marine Fishery Establishments, 1981



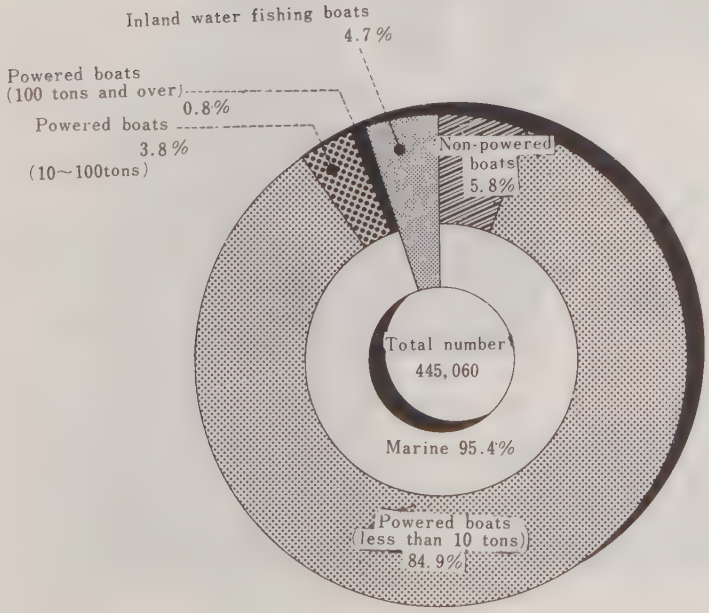
2 Number of Marine Fishery Workers, 1981



3 Number of Fishing Boats, 1970～1981

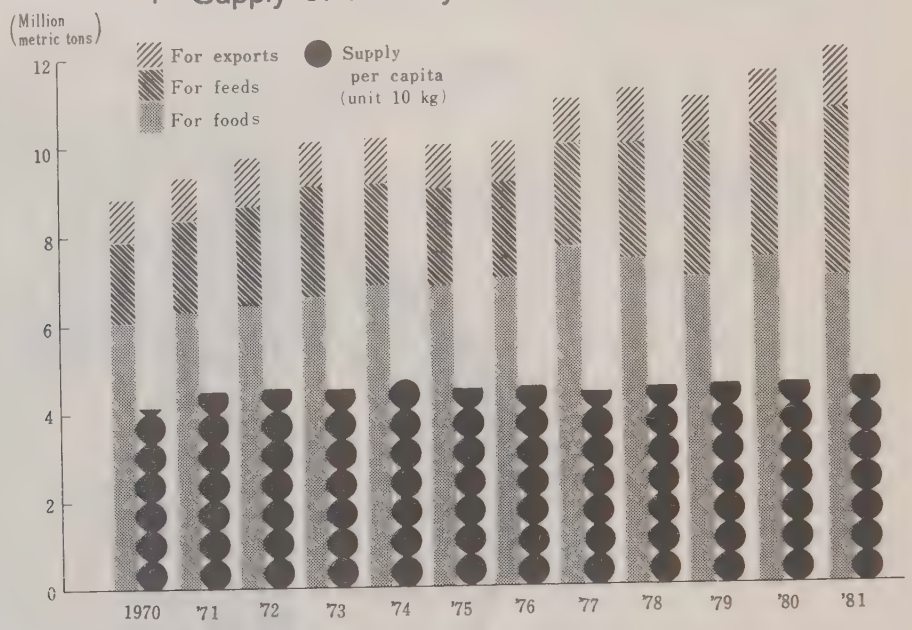


4 Number of Fishing Boats, 1981

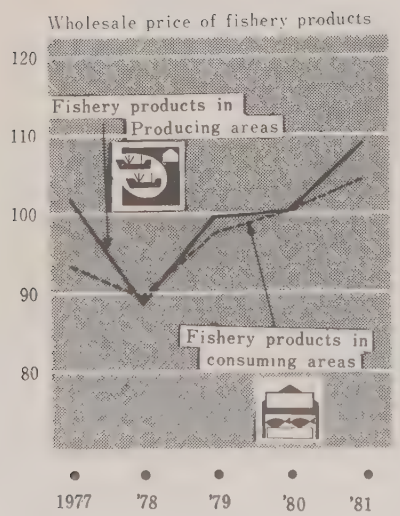


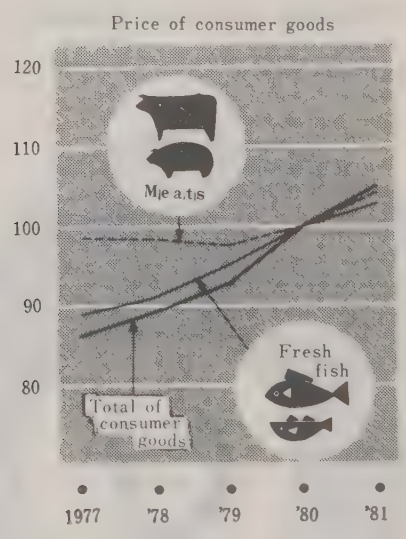
III MARKETING OF FISHERY PRODUCTS

1 Supply of Fishery Products, 1970～1981

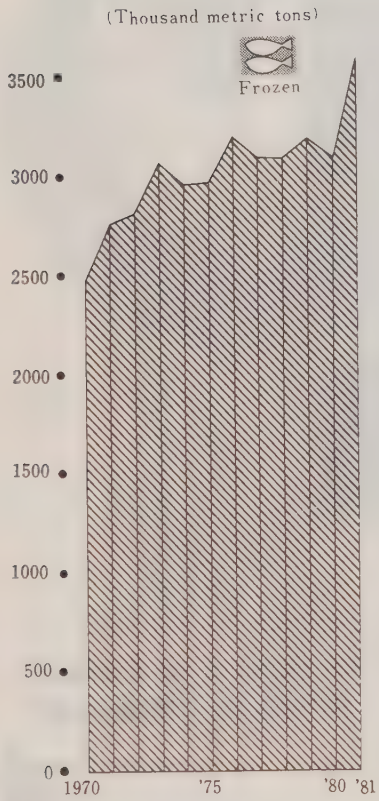


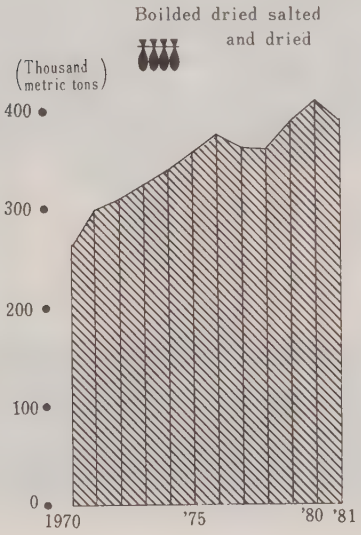
2 Price Index of Fishery Products (1980=100) 1972～1981

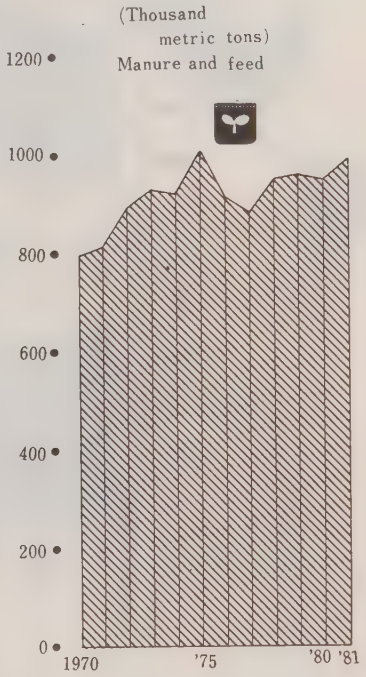


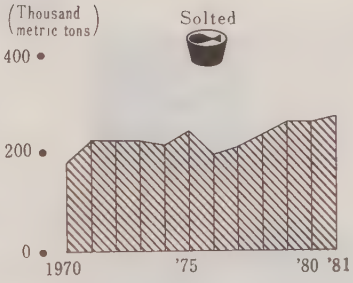


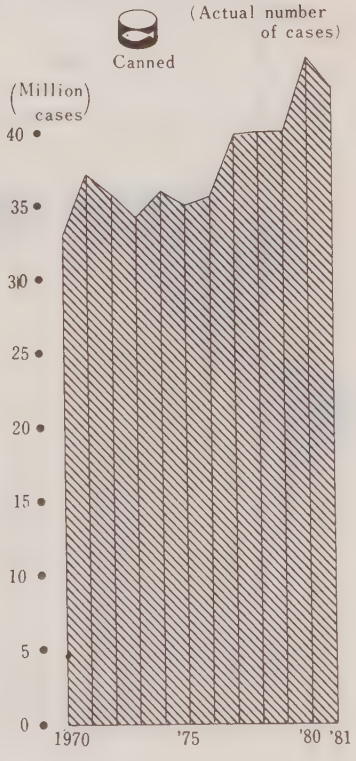
3 Fishery Processing Products, 1970～1981

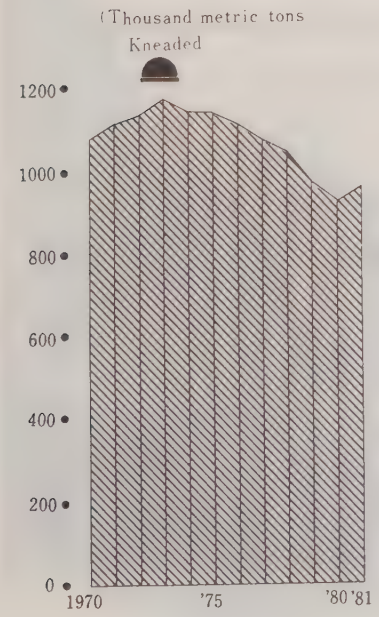


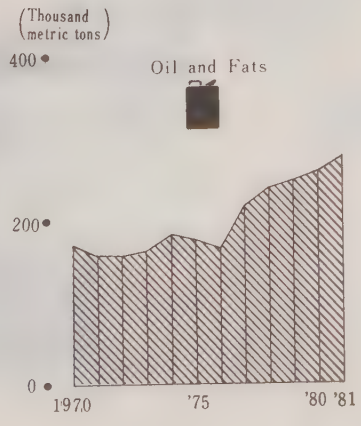






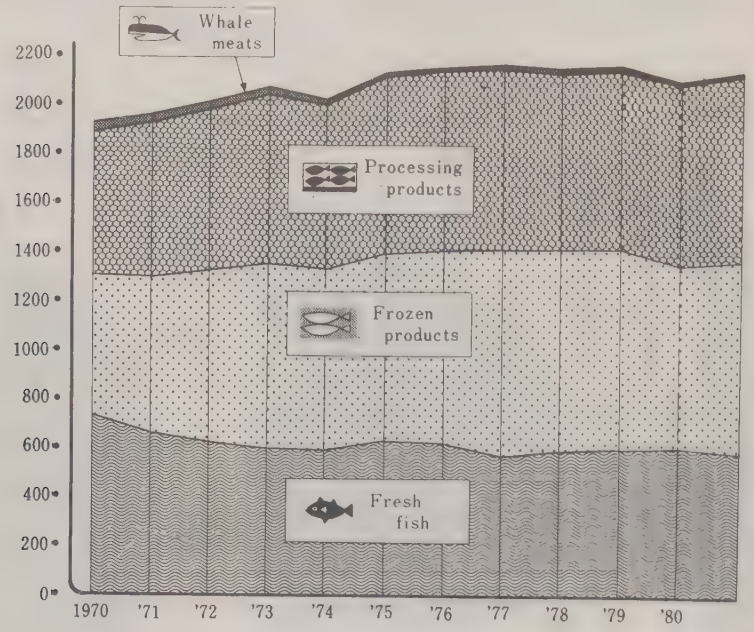






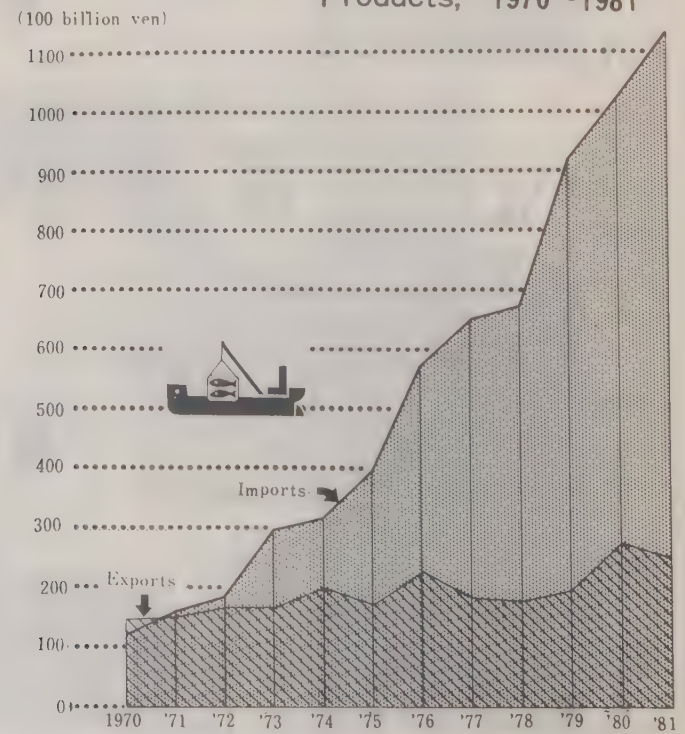
4 Volume Transacted by Group of Commodity in Six Large Central Wholesale Markets, 1970～1981

(thousand metric tons)

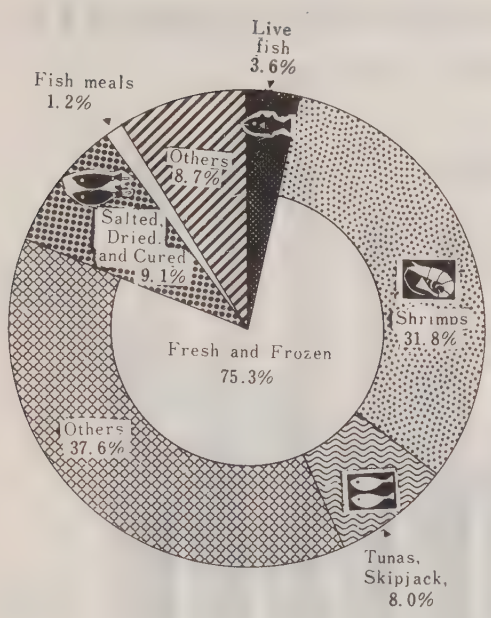


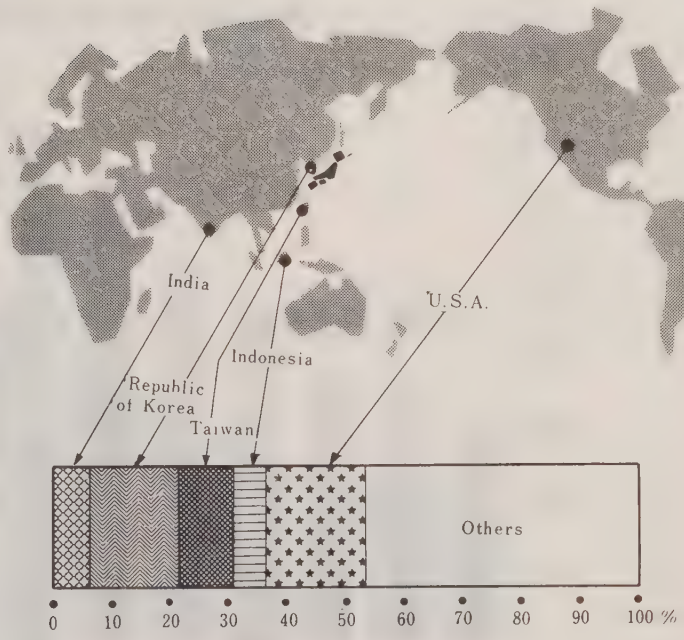
5 Exports and Imports of Fishery Products, 1970～1981

(100 billion yen)

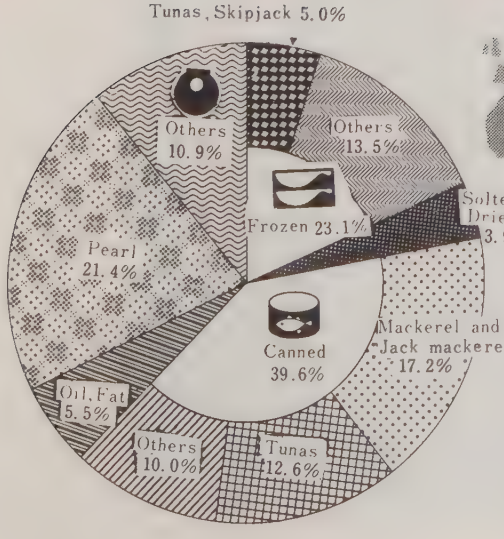


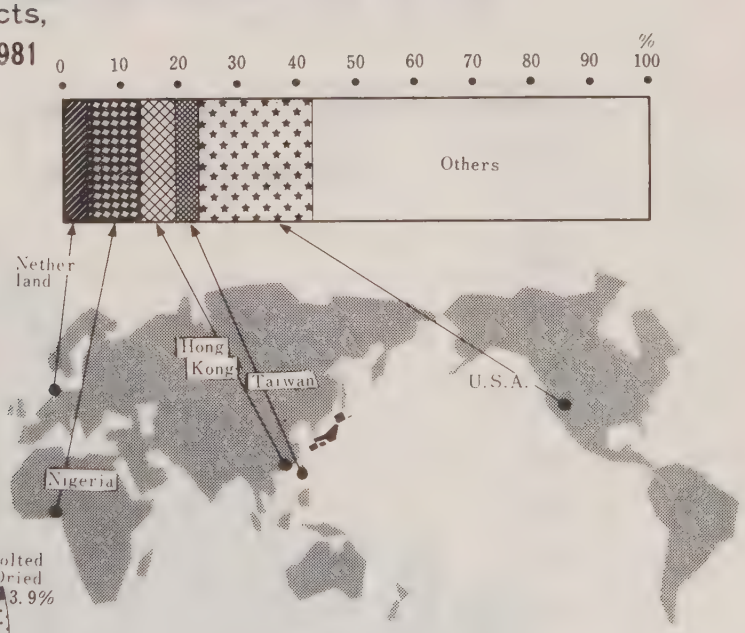
6 Imports of Fishery Products, 1981 (in value)





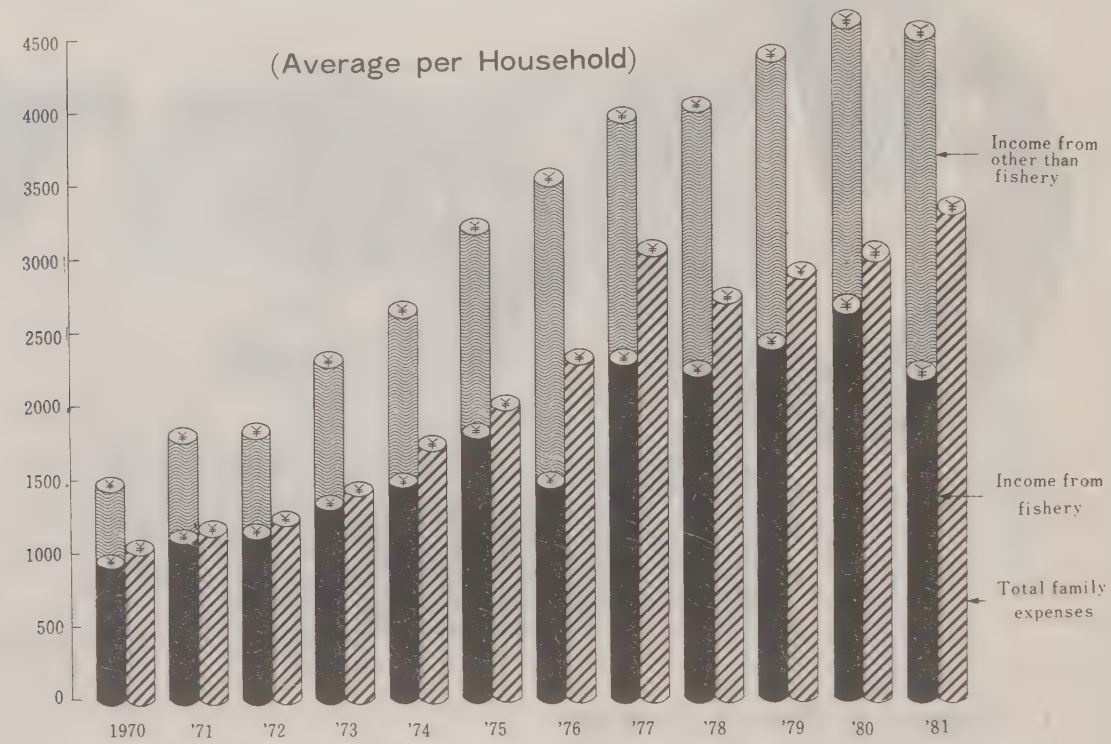
7 Exports of Fishery Products, (in value) 1981



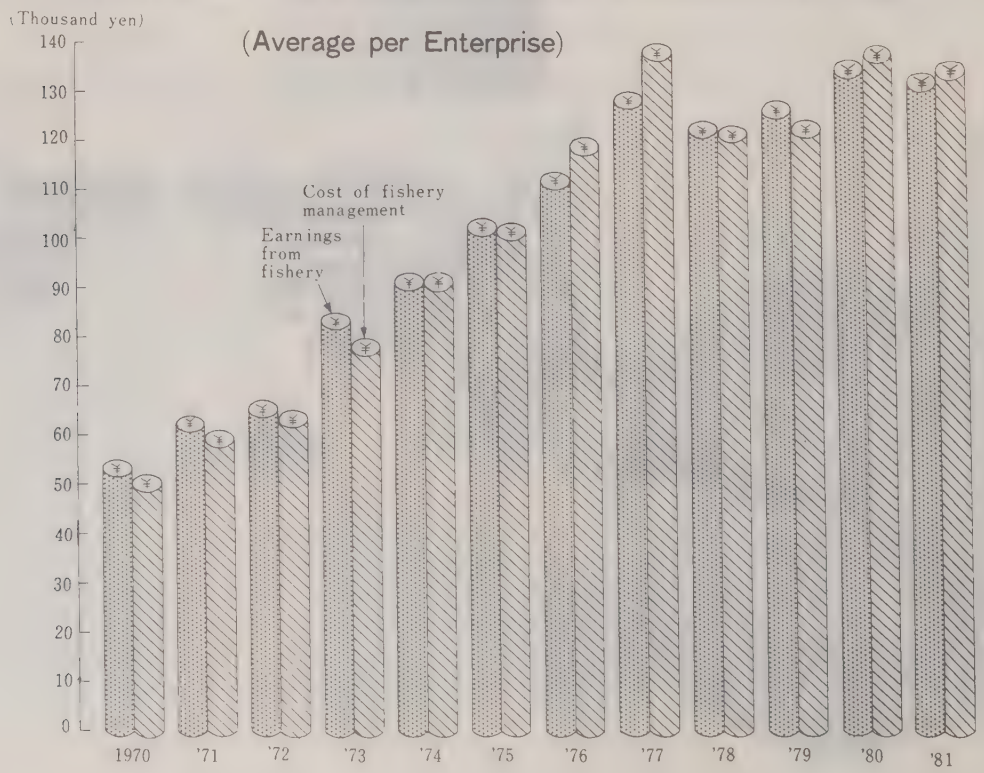


Ⅳ. ECONOMY OF FISHERY ESTABLISHMENTS

1. Economy of Fishery Household, 1970～1981



2. Economy of Middle and Small Size Fishery Enterprise, 1970～1981



STATISTICAL TABLES

I FISHERY PRODUCTION

I — 1 SUMMARY OF CATCH BY FISHERY SECTOR, 1950～1981

Unit { Quantity: Thousand metric tons
Value : Hundred million yen

Year	Total		Marine Fisheries		Marine Cultures		Inland Water Fisheries		Inland Water Cultures		Whalings	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Numbers	Value
1950	3,373	---	3,255	---	48	---	63	---	5	---	5,332	---
1951	3,930	---	3,774	---	88	---	60	---	6	---	6,335	---
1952	4,823	---	4,646	---	113	---	53	---	9	---	7,816	---
1953	4,598	---	4,387	---	144	---	57	---	8	---	6,631	---
1954	4,541	---	4,304	---	145	---	82	---	9	---	9,591	---
1955	4,907	---	4,658	---	154	---	82	---	11	---	11,866	---
1956	4,772	2,310	4,488	2,012	180	206	90	62	13	30	14,124	160
1957	5,407	2,582	5,067	2,303	244	174	81	73	14	31	15,439	213
1958	5,506	2,569	5,198	2,257	214	205	78	70	15	37	19,922	196
1959	5,884	2,877	5,568	2,535	225	236	75	69	15	36	20,527	221
1960	6,192	3,448	5,817	2,983	284	338	74	80	15	47	19,649	234
1961	6,710	3,952	6,287	3,340	322	455	81	93	18	64	20,848	267
1962	6,864	4,266	6,397	3,567	362	538	84	94	20	68	22,240	269
1963	6,698	4,830	6,200	3,988	389	650	84	98	23	94	22,373	309
1964	6,350	4,976	5,868	4,039	362	724	89	102	29	111	24,410	323
1965	6,908	5,558	6,382	4,516	380	816	113	101	33	126	26,986	376
1966	7,103	6,260	6,558	5,005	405	974	103	118	36	164	22,784	290
1967	7,851	7,026	7,241	5,677	470	1,074	97	109	42	166	21,088	252
1968	8,670	7,448	7,993	6,097	522	1,010	103	119	52	221	21,586	237
1969	8,613	8,488	7,976	6,928	473	1,130	112	144	52	285	17,409	221
1970	9,315	9,692	8,598	7,852	549	1,353	119	170	48	317	16,887	272
1971	9,909	10,894	9,149	8,957	609	1,374	101	214	50	349	16,419	314
1972	10,213	11,796	9,400	9,417	648	1,708	109	231	56	441	17,590	278
1973	10,763	14,641	9,793	11,564	791	2,252	114	299	64	528	14,012	273
1974	10,808	17,084	9,749	13,789	880	2,825	112	348	67	622	14,277	327
1975	10,545	18,870	9,573	15,204	773	2,536	127	417	72	713	13,427	337
1976	10,656	21,862	9,605	17,702	850	2,933	124	415	77	811	9,632	216
1977	10,757	25,451	9,688	20,513	863	3,522	126	486	82	930	9,299	206
1978	10,828	24,511	9,683	18,914	917	4,013	138	508	90	1,076	5,924	124
1979	10,587	26,473	9,477	20,550	879	4,222	136	527	95	1,164	4,918	107
1980	11,122	27,838	9,909	21,336	992	4,687	128	578	93	1,110	5,191	126
1981	11,319	27,779	10,143	21,525	960	4,565	124	625	92	1,064	4,887	111

I — 2 SUMMARY OF CATCH BY SPECIES GROUP, 1950~1981

Unit: Thousand metric tons

Year	Total	Marine Waters					Inland Waters				
		Fishes	Molluscs	Crus-taceans	Aquatic plants	Others	Fishes	Molluscs	Crus-taceans	Aquatic plants	Others
1950	3,373	2,210	760	49	257	28	32	12	1	23	1
1951	3,930	2,572	922	56	290	22	30	12	1	23	2
1952	4,823	3,268	1,033	72	361	27	35	13	1	12	1
1953	4,598	3,253	889	70	292	27	37	15	1	12	2
1954	4,541	3,239	786	99	287	38	44	14	2	31	1
1955	4,907	3,541	802	106	310	53	52	14	3	25	1
1956	4,772	3,441	774	95	304	52	60	16	3	24	3
1957	5,407	3,877	894	108	402	27	64	24	5	2	4
1958	5,506	4,017	893	119	339	42	62	26	3	1	4
1959	5,884	4,267	1,027	119	337	44	59	26	1	1	4
1960	6,192	4,463	1,078	126	386	51	60	25	1	1	3
1961	6,710	5,015	985	138	425	49	66	28	2	1	3
1962	6,864	4,911	1,158	149	501	41	69	30	2	1	3
1963	6,698	4,653	1,303	159	425	51	72	33	1	1	2
1964	6,350	4,745	925	153	361	48	80	35	1	0	2
1965	6,908	5,093	1,082	132	406	52	86	56	1	0	2
1966	7,103	5,232	1,097	142	436	57	86	50	1	0	2
1967	7,851	5,742	1,225	149	534	60	92	42	2	0	2
1968	8,670	6,340	1,430	186	503	57	104	44	2	1	4
1969	8,613	6,561	1,238	153	444	53	107	51	3	1	3
1970	9,315	7,289	1,132	146	521	59	103	58	3	1	3
1971	9,909	7,913	1,065	126	587	66	107	36	5	1	2
1972	10,213	8,075	1,217	137	559	59	110	46	5	1	2
1973	10,763	8,645	1,130	141	653	64	124	45	6	1	2
1974	10,808	8,543	1,129	170	601	85	126	44	6	1	3
1975	10,545	8,341	1,156	147	627	75	141	48	7	1	3
1976	10,656	8,378	1,196	129	665	87	142	48	5	1	5
1977	10,757	8,461	1,223	126	638	101	150	49	6	0	3
1978	10,828	8,433	1,232	141	638	155	161	52	9	0	6
1979	10,587	8,277	1,187	134	639	117	168	49	8	0	6
1980	11,122	8,582	1,372	130	695	120	165	43	6	1	8
1981	11,319	8,973	1,226	132	648	124	150	41	6	0	9

I — 3 CATCH IN QUANTITY

	1977	1978	1979	1980	1981
Total 1)	10,756,794	10,828,289	10,590,423	11,121,846	11,318,652
Marine Fisheries	9,687,586	9,682,927	9,476,793	9,908,554	10,142,996
Fishes	8,335,958	8,300,940	8,106,566	8,412,014	8,798,344
Tunas, albacore	336,530	384,674	362,917	378,496	360,278
Marlins, swordfishes	41,548	46,627	43,357	44,120	47,455
Skipjack, frigate mackerel	322,703	384,621	346,518	376,739	305,491
Sharks, rays	58,747	50,048	51,976	54,170	46,378
Salmons, trouts	116,465	102,760	131,021	122,515	149,845
Herring	19,873	6,706	6,819	11,154	8,901
Sardine, round herring	1,464,655	1,687,953	1,866,495	2,236,160	3,125,377
Anchovy	244,933	152,428	134,577	150,606	160,467
Jack mackerel, scads	185,801	153,131	183,883	144,977	122,231
Mackerels	1,355,309	1,625,866	1,414,183	1,301,121	908,015
Saury	253,465	360,213	277,960	187,155	160,319
Yellowtails	26,915	37,414	44,970	42,009	37,774
Flounders, halibuts, soles	288,025	313,827	288,896	288,881	296,572
Cod	85,252	88,989	91,829	96,742	102,205
Alaska pollack	1,931,072	1,546,176	1,551,116	1,552,421	1,595,302
Atka mackerel	234,812	134,763	118.888	117,351	122,839
Rockfishes	61,926	43,972	50,374	43,180	38,479
Croakers	40,439	37,471	39,444	32,025	33,358
Hairtail	28,154	28,085	30,518	37,803	35,097
Sea breams	29,666	29,433	28,825	28,151	26,567
Spanish mackerel	40,621	7,500	6,140	7,045	6,181
Sand lance	137,340	99,078	110,484	201,226	162,448
Others	1,031,707	979,205	925,376	975,967	
Crustaceans	125,049	140,035	132,930	128,064	130,275
Spiny lobster	971	1,000	1,064	1,065	1,061
"Kuruma" prawn	2,440	2,673	2,468	2,307	2,864
Other prawns, shrimps	50,019	56,003	49,129	47,133	50,123
King crab	287	130	270	56	26
Queen crab	21,070	22,902	23,476	21,314	12,484
Other crabs	50,262	57,327	56,523	56,189	63,717
Molluscs	927,082	932,378	938,307	1,070,601	923,864
Common squid	264,287	198,517	212,841	331,225	196,830
Other squids, cuttlefishes	248,378	321,231	315,990	355,386	319,670
Octopuses	67,913	65,441	51,986	46,105	52,236
Abalones	5,203	5,377	4,853	4,878	4,706
Short necked clams	155,506	153,767	132,641	127,386	137,114
Common scallop	43,502	59,664	79,734	83,134	91,139
"Mogai" clam	5,950	4,023	7,206	1,677	2,804
Other clams, shellfishes	136,343	124,359	133,056	120,810	119,365

BY SPECIES, 1977~1981

Unit: Metric tons

Species	1977	1978	1979	1980	1981
Echinodermata, etc.	92,127	145,638	111,434	113,907	122,521
Sea urchins	26,898	25,930	26,500	24,158	23,984
Sea cucumbers	9,793	10,143	9,381	8,970	8,098
Other marine animals	55,436	108,679	75,553	80,779	90,439
Marine mamals	1,429	1,899	1,062	1,283	1,472
Seaweeds	206,030	162,893	186,494	182,685	166,515
Kelps	132,989	108,911	131,546	124,816	112,178
"Wakame" seaweed	20,180	12,213	12,131	15,759	13,993
Agar-agar	11,634	11,374	11,177	9,861	8,988
Others	41,227	30,395	31,641	32,249	31,356
Marine Cultures	861,389	917,244	822,620	991,843	959,680
Yellowtails	114,866	121,728	154,872	149,311	150,754
Pearl	39	37	40	42	45
Oyster	212,786	232,069	205,509	261,323	235,241
Common scallop	83,180	67,723	43,614	40,399	59,095
"Nori" seaweed	279,031	350,471	325,686	357,672	340,510
"Wakame" seaweed	125,833	102,682	103,791	113,532	91,272
Others	45,654	42,534	49,108	69,564	82,763
Inland Water Fisheries	125,660	138,185	136,441	127,627	124,000
Salmons, trouts	5,593	6,151	8,652	11,527	11,092
Sweet fish	13,451	13,363	14,822	14,723	15,406
Common carp, crucian carp	17,076	18,127	18,804	18,545	17,246
Eel	2,102	2,068	1,923	1,936	1,920
Fresh water clams	49,358	52,423	51,075	43,093	40,589
Others	38,080	46,053	41,165	37,803	37,747
Inland Water Cultures	82,159	89,933	94,569	93,719	91,976
Trouts	17,617	19,029	18,464	19,972	20,234
Sweet fish	5,875	7,185	8,455	7,989	9,492
Common carp, crucian carp	30,302	30,452	28,715	26,196	25,073
Eel	27,630	32,106	36,781	36,618	33,984
Others	735	1,151	2,154	2,939	3,193
Whaling 2)	9,299	5,924	4,918	5,191	4,887
Blue whale	-	-	-		-
Fin whale	-	-	-		-
Humpback whale	-	-	-		-
Sei whale	1,737	516	227	307	485
Sperm whale	3,312	2,561	1,520	1,192	869
Mink whale	4,198	2,800	3,140	3,658	3,494
Bottlenose whale	44	36	-	31	39
Pilot whale	6	11	-	1	-
Others	2	-	31	2	-

Notes : 1) Excluding whales.

2) Actual number of catch.

I — 4 CATCH IN VALUE

Species	1977	1978	1979	1980	1981
Total	2,565,646	2,463,583	2,658,652	2,783,778	2,789.066
Marine Fisheries	2,051,325	1,891,406	2,055,936	2,133,627	2,152,458
Fishes	1,530,142	1,346,818	1,499,662	1,549,576	1,602,271
Tunas, albacore	278,989	252,448	336,479	333,837	329,561
Marlins, swordfishes	32,143	26,510	30,491	31,755	33,439
Skipjack, frigate mackerel	103,870	78,790	85,765	114,614	101,291
Sharks, rays	6,728	5,402	7,351	7,679	7,066
Salmons, trouts	111,084	121,991	116,709	104,367	124,555
Herring	4,872	1,856	2,015	3,158	2,712
Sardine, round herring	62,566	47,184	59,860	73,866	77,181
Anchovy	20,851	12,925	14,204	15,433	13,124
Jack mackerel, scads	68,525	48,405	58,671	54,026	58,559
Mackerels	79,494	57,905	69,784	82,075	94,215
Saury	41,117	35,591	19,542	19,918	28,271
Yellowtails	28,140	32,614	35,097	35,002	34,086
Flounders, halibuts, soles	93,865	96,290	104,368	107,848	112,859
Cod	16,766	18,315	17,657	18,855	19,062
Alaska pollack	147,261	124,040	125,899	124,866	117,114
Atka mackerel	10,996	6,134	6,702	8,555	8,718
Rockfishes	17,237	14,339	18,328	16,729	18,591
Croakers	8,910	7,719	8,347	7,650	7,847
Hairtail	8,594	6,450	8,442	11,849	11,062
Sea breams	47,223	48,405	50,215	49,843	45,388
Spanish mackerels	11,935	6,040	5,556	6,888	6,201
Sand lance	15,321	8,944	7,724	11,660	12,101
Others	313,655	281,244	310,456	309,103	
Crustaceans	103,475	108,996	114,662	117,137	123,306
Spiny lobster	5,081	5,388	5,681	6,207	6,394
"Kuruma" prawn	10,482	11,294	10,650	11,062	12,848
Other prawns, shrimps	50,685	54,156	57,711	58,833	62,877
King crab	178	94	248	43	19
Queen crab	15,117	18,005	18,005	17,592	12,730
Other crabs	21,932	20,511	22,367	23,400	28,438
Molluscs	349,634	370,636	367,157	385,141	350,844
Common squid	125,603	122,313	120,351	119,724	88,924
Other squids, cuttlefishes	101,886	124,705	110,996	128,215	127,800
Octopuses	32,786	27,339	28,740	22,920	22,169
Abalones	16,136	18,082	16,981	19,991	17,757
Short necked clam	17,236	23,003	23,121	26,809	26,673
Common scallop	10,551	11,327	17,567	20,679	21,956
"Mogai" clam	1,016	736	1,112	293	515
Other clams, shellfishes	44,420	43,131	48,289	46,510	45,050

BY SPECIES, 1977～1981

Unit: Million yen

Species	1977	1978	1979	1980	1981
Echinodermata, etc.	36,845	36,120	40,095	40,177	42,412
Sea urchins	17,203	16,418	19,200	18,994	21,600
Sea cucumbers	4,349	4,470	5,167	5,106	5,098
Other marine animals	15,293	15,232	15,728	16,077	15,714
Marine mammals	186	302	129	260	212
Seaweeds	31,043	28,081	34,261	41,336	33,413
Kelps	20,969	19,752	25,009	30,450	23,779
"Wakame" seaweed	2,706	1,826	1,751	2,649	2,597
Agar-agar	2,068	2,009	2,292	1,686	1,467
Other	354,934	4,494	5,209	6,551	5,570
Marine Cultures	352,156	401,321	422,892	468,738	456,516
Yellowtails	120,313	116,484	132,318	139,553	150,222
Pearl	25,456	22,128	32,176	46,062	48,925
Oyster	27,803	24,694	23,138	28,462	27,215
Common scallop	23,153	16,040	11,274	11,938	17,184
"Nori" laver	108,267	166,950	157,694	152,874	121,718
"Wakame" seaweed	9,232	8,478	10,355	13,916	9,783
Others	37,932	46,547	55,937	75,933	81,469
Inland Water Fisheries	48,627	50,827	52,705	57,822	62,533
Salmons, trouts	3,445	3,625	4,001	5,448	5,800
Sweet fish	19,148	20,070	20,814	21,550	23,690
Common carp, crucian carp	5,578	6,111	6,392	7,049	6,524
Eel	2,845	2,816	3,076	2,103	1,490
Fresh water clams	6,434	6,924	6,634	6,459	9,699
Others	11,177	11,375	93,622	15,213	15,330
Inland Water Cultures	92,986	107,622	116,415	110,986	106,431
Trouts	10,764	11,743	14,347	17,636	14,165
Sweet fish	8,488	11,011	12,266	9,802	12,341
Common carp, crucian carp	13,218	14,197	12,664	10,758	10,648
Eel	56,863	66,748	71,465	63,605	58,996
Others	3,653	3,923	5,673	9,185	10,281
Whalings	20,552	12,409	10,704	12,605	11,128

I — 5 CATCH IN QUANTITY AND VALUE

Type of Fisheries	1977		1978	
	Q	V	Q	V
Total 1)	10,756,794	2,545,094	10,828,289	2,451,174
Marine Fisheries	9,687,586	2,051,325	9,682,927	1,890,954
Mother ship types				
Mother ship type trawl.....	563,208	47,247	555,706	52,219
Mother ship type salmon fishery..	23,565	17,608	15,399	16,992
Mother ship type crab fishery....	9,770	5,838	---	---
Mother ship type tuna long line..	501	---	---	---
Trawls				
Large trawls in N.Pacific Ocean..	1,013,519	79,339	622,496	71,318
Large trawl in Southern Ocean ...	407,144	77,286	261,004	65,749
Large trawl in East China Sea....	206,182	71,910	197,769	64,880
Shrimp trawl	2,901	5,104	2,720	4,896
Medium trawl (one boat operation)	916,909	105,425	824,829	89,387
(two boats operation)	68,276	19,438	59,980	18,193
Small trawls	323,789	136,171	339,240	141,206
Surrounding nets				
Large and medium surrounding net				
(one boat operation).....	2,016,216	149,447	2,449,046	113,613
(two boats operation).....	128,258	5,304	68,324	1,914
Purse seine(one boat operation)..	411,759	43,773	499,552	42,248
(two boats operation).	269,761	27,977	269,333	21,608
Others	25,823	4,851	10,540	4,385
Lift nets				
Saury stick held dip net	244,159	39,394	350,617	34,886
Others	108,711	15,102	140,809	15,105
Gill nets				
Salmon drift gill net	38,354	33,354	25,287	25,079
Others	335,612	100,096	344,758	107,551
Seine nets				
Beach seine	10,054	2,629	8,935	2,671
"Patchi" seine	136,817	21,428	110,599	16,449
Boat seine	140,819	41,640	131,963	42,934
Set nets				
Salmon large set net	42,786	43,964	49,754	63,334
Other large set net	166,347	46,192	180,626	46,186
Small set nets	147,289	47,786	144,661	46,520
Anglings				
Skipjack pole-and-line				
on distant waters	205,872	20,077	231,703	54,127
Skipjack pole-and-line				
on offshore waters	120,204	41,108	161,445	34,409
Skipjack pole-and-line				
on coastal waters	17,589	6,652	23,840	7,103
Mackerel pole-and-line.....	139,058	10,812	28,548	1,255
Other mackerel anglings	8,306	1,188	4,658	683
Squid angling	346,542	159,830	363,670	170,328
Others	87,039	62,244	90,649	59,013
Long lines				
Tuna long line on distant waters	201,596	2) 185,781	2) 200,888	2) 160,563
Tuna long line on offshore waters	95,369	62,199	101,490	51,553
Tuna long line on coastal waters	22,042	12,626	23,313	11,336
Salmon long line	2,345	2,078	2,026	1,698
Others	75,868	41,801	96,587	43,083
Others				
N. Pacific Ocean tanner crab				
fishery	3,710	2,406	3) 15,797	3) 8,820
N. Pacific Ocean long line				
and gill net	23,349	8,576	24,338	6,365
Shellfish collecting	216,495	51,284	215,162	59,468
Seaweed collecting	203,125	30,473	159,589	26,700
Other fisheries	167,661	73,892	275,277	85,132
Marine Cultures	861,389	352,156	917,244	401,321
Inland Water Fisheries	125,660	48,627	138,185	50,912
Inland Water Cultures	82,159	92,986	89,933	107,622
Whalings				
Antarctic mother ship type	5,421	13,720	2,950	7,560
N. Pacific mother ship type.....	1,485	3,360	735	1,690
Coastal large type	2,093	3,140	1,792	2,790
Coastal small type	300	340	447	570

Notes: 1) Excluding whalings.

BY FISHERY TYPE, 1977~1981

Unit { Quantity : Metric tons
Value : Million yen

1979		1980		1981	
Q	V	Q	V	Q	V
10,590,423	2,647,948	11,121,846	2,771,173	11,318,653	2,789,066
9,476,793	2,055,936	9,908,554	2,133,627	10,142,996	2,152,458
542,780	45,457	553,678	42,282	542,087	41.380
15,449	15,191	15,441	14,681	15,445	13,989
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595,962	81,617	667,791	75,526	656,814	76,307
222,848	49,231	202,816	47,880	219,578	64,053
199,478	69,322	198,705	73,567	184,347	65,490
3,105	7,676	3,437	8,081	3,617	10,024
853,704	102,162	799,710	103,263	836,139	104,646
59,320	19,101	60,090	20,330	66,547	22,371
355,119	154,240	343,403	154,834	384,439	165,280
2,397,823	160,187	2,562,588	182,739	2,856,076	207,715
44,485	1,916	61,646	2,769	139,325	3,211
548,292	48,588	559,692	54,369	597,142	61,995
258,564	21,632	256,859	22,536	352,902	19,024
5,494	2,969	5,329	2,929	5,894	3,857
266,741	18,402	180,328	19,150	154,879	27,481
136,093	15,163	178,856	18,465	139,859	17,196
26,077	19,948	26,069	17,969	25,978	20,347
349,748	113,421	382,306	137,122	429,553	157,486
6,882	2,404	7,469	1,928	6,391	1,732
88,838	17,629	125,337	13,476	92,830	13,236
123,524	39,228	164,570	37,496	167,532	44,261
69,977	65,986	59,413	52,924	75,502	64,127
184,774	51,519	246,499	54,861	277,630	61,962
146,751	48,160	156,160	49,425	170,610	53,023
197,870	57,854	206,822	69,826	169,204	57,813
143,424	35,987	143,145	46,645	106,175	40,604
20,165	6,954	23,674	8,974	18,731	6,932
6,713	1,423	2,735	246	4,007	406
3,310	529	3,529	682	3,846	853
333,850	165,845	451,209	161,272	282,356	124,127
89,660	63,021	88,939	64,064	82,825	61,989
2) 205,042	2) 220,799	211,997	212,735	205,651	209,715
97,164	64,475	106,231	67,374	88,958	61,559
24,312	14,706	23,063	15,454	18,714	12,106
1,964	1,566	1,929	1,151	1,813	1,463
93,949	46,601	103,942	48,358	97,029	44,122
3) 15,731	3) 9,061	7,892	4,702	799	512
29,664	8,932	46,800	10,831	45,920	11,141
180,061	55,936	176,157	61,996	183,752	59,080
183,272	33,380	179,890	40,673	164,001	32,752
348,834	97,718	312,331	110,042	268,045	106,370
882,620	422,892	991,843	468,738	959,680	456,510
136,441	52,705	127,735	57,822	124,000	62,533
94,569	116,415	93,714	110,986	91,976	106,431
2,933	6,410	3,279	7,703	3,120	5,962
226	890	–	–	–	–
1,321	2,770	1,499	4,230	1,354	4,462
438	630	413	672	413	704

Notes: 2) Including mother ship type tuna long line
3) Including mother ship type crab fishery

I — 6 CATCHES OF MAJOR SPECIES

(1) Tunas, albacore

Unit: Metric tons

	1977	1978	1979	1980	1981
Total Catch	336,530	384,674	362,917	378,496	360,278
Tuna long line					
mother ship type	461	1) ...	...	...	...
in distant waters	171,239	1) 166,844	168,656	175,280	165,783
in offshore waters	65,870	76,027	66,429	74,164	63,312
in coastal waters	16,836	16,852	17,435	16,417	18,702
Skipjack pole-and-line	56,267	80,159	58,927	65,209	44,777
Surrounding nets	16,177	24,827	30,934	32,979	52,051
Others	9,680	20,809	20,536	14,447	15,653

(2) Marlins, swordfishes

Total Catch	41,548	46,627	43,357	44,122	47,455
Tuna long line					
mother ship type	30	1) ...	...	...	...
in distant waters	19,938	1) 23,269	24,465	23,359	26,964
in offshore waters	9,911	9,903	10,714	10,355	9,851
in coastal waters	1,838	2,236	2,220	2,329	1,834
Other gill nets	8,164	9,295	4,375	6,218	7,241
Others	1,667	1,924	1,583	1,861	1,565

(3) Skipjack

Total Catch	309,407	369,530	329,948	354,156	289,286
Skipjack pole-and-line					
in distant waters	168,993	172,428	153,609	166,068	148,704
in offshore waters	96,343	136,814	127,350	115,962	78,425
in coastal waters	12,099	17,673	16,922	13,538	10,556
Surrounding nets (one boat)	24,396	31,810	29,481	49,137	43,023
Surrounding nets (two boats)....	114	287	106	175	-
Other anglings	4,569	7,280	7,715	6,476	3,843
Others	2,893	3,238	5,235	2,800	4,735

(4) Salmons, trouts

Total Catch	116,465	102,760	131,021	122,515	149,845
Mother ship type salmon fishery.	23,565	15,399	15,449	15,441	15,445
Salmon drift gill net	38,354	25,287	26,077	26,069	25,978
Salmon large set net	37,349	45,198	65,992	52,197	71,485
Small set nets	6,958	6,901	9,879	9,690	12,476
Other long lines	2,539	2,266	2,001	2,860	3,086
Others	7,700	7,709	11,623	16,258	21,375

(5) Herring

Total Catch	19,873	6,708	6,819	11,154	8,901
Mother ship type trawl	564	281	14	15	-
Large trawl in Southern Ocean ..	1	2	-	-	-
Medium trawl(one boat)	8,151	3,174	3,823	9,585	8,006
Other gill nets	5,098	984	480	988	615
Others	6,059	2,267	2,502	566	280

Note : 1) Including mother ship type tuna long line.

BY FISHERY TYPE, 1977~1981

(6) Sardine, round herring

Unit: Metric tons

	1977	1978	1979	1980	1981
Total Catch	1,464,655	1,687,953	1,866,495	2,236,158	3,125,377
Surrounding nets (one boat)	1,016,906	1,247,384	1,448,395	1,677,905	2,369,434
Surrounding nets (two boats)	279,148	236,787	208,289	234,409	408,194
Other surrounding nets	1,325	639	88	342	548
Other lift nets	22,663	28,444	50,640	45,726	41,032
Set nets	79,875	103,069	114,194	179,277	232,454
Others	64,738	71,630	44,889	98,499	73,715

(7) Anchovy

Total Catch	244,933	152,428	134,577	150,606	160,467
Surrounding nets (one boat)	63,526	36,335	28,706	48,079	45,161
Surrounding nets (two boats)	58,054	39,242	31,789	37,288	42,655
Set nets	17,956	11,304	8,969	10,407	9,309
"Patchi" seine	54,242	33,453	33,332	22,784	32,685
Boat seine	37,406	22,238	24,404	25,750	25,404
Others	13,749	9,856	7,377	6,298	5,253

(8) Jack mackerel, scads

Total Catch	185,801	153,131	183,883	144,979	122,231
Surrounding nets (one boat)	150,650	126,125	159,689	118,984	98,137
Surrounding nets (two boats)	8,656	3,891	5,267	3,787	3,866
Other lift nets	7,243	8,275	4,835	8,585	4,326
Set nets	9,329	6,904	7,571	7,448	8,143
Others	9,923	7,936	6,521	6,175	7,759

(9) Mackerels

Total Catch	1,355,309	1,625,865	1,414,183	1,301,122	908,015
Surrounding nets (one boat)	1,106,790	1,404,489	1,150,945	1,092,895	744,037
Surrounding nets (two boats)	40,445	40,115	41,510	25,095	19,915
Mackerel pole-and-line	138,113	28,449	6,673	2,698	3,961
Set nets	30,813	27,565	24,527	26,830	23,195
Others	39,148	125,247	190,528	153,604	116,907

(10) Saury

Total Catch	253,465	360,213	277,960	187,155	160,319
Saury stick held dip net	243,844	350,532	266,652	180,250	154,789
Other gill nets	2,996	2,800	3,772	2,803	3,542
Set nets	5,673	5,041	7,262	4,055	1,945
Others	952	1,840	274	47	43

I – 6 CATCHES OF MAJOR SPECIES

(11) Yellowtails

Unit: Metric tons

	1977	1978	1979	1980	1981
Total Catch	26,915	37,414	44,970	42,009	37,774
Surrounding nets	3,427	5,423	10,677	10,008	6,623
Large set nets	6,695	13,264	12,545	10,236	11,678
Small set nets	2,832	5,078	5,191	5,188	4,468
Other gill nets	2,995	3,136	4,031	5,042	4,136
Other anglings	9,046	8,282	9,699	9,095	7,909
Others	1,920	2,231	2,827	2,440	2,960

(12) Flounders, halibuts, soles

Total Catch	288,025	313,830	288,896	288,881	296,572
Mother ship type trawl	62,819	57,059	56,739	58,707	67,304
Large trawls in N.Pacific Ocean..	75,324	105,790	89,086	89,700	87,188
Large trawl in East China Sea	16,616	15,638	15,213	16,836	15,915
Medium trawls	55,580	54,962	50,648	47,488	48,828
Small trawls	27,755	27,430	27,924	27,019	27,627
Other gill nets	39,320	39,394	35,401	35,800	36,871
Others	10,611	13,557	13,885	13,331	12,839

(13) Cod

Total Catch	85,252	89,016	91,829	96,742	102,205
Mother ship type trawl	18,456	16,617	14,766	9,939	10,555
Large trawls in N.Pacific Ocean..	20,213	27,643	19,005	19,319	19,502
Medium trawls	27,143	18,521	15,978	16,949	16,567
Other gill nets	7,611	8,280	11,089	11,904	17,886
Other long lines	4,221	3,607	13,810	3,377	2,367
Others	7,608	14,348	17,181	35,254	35,328

(14) Alaska pollack

Total Catch	1,931,072	1,546,176	1,551,116	1,552,421	1,595,302
Mother ship type trawl	478,155	475,244	464,803	479,734	452,815
Large trawls in N.Pacific Ocean..	803,207	394,015	396,681	463,846	462,972
Medium trawls	489,342	499,324	524,599	431,381	479,422
Other gill nets	122,372	115,832	120,441	107,421	129,416
Other long lines	23,855	44,656	33,466	54,369	50,191
Others	14,141	17,105	11,126	15,670	20,486

(15) Sea breams

Total Catch	29,664	29,433	28,825	28,151	26,567
Large trawl in Southern Ocean	1,658	–	–	–	–
Large trawl in East China Sea	4,112	4,720	5,006	4,657	4,393
Small trawls	2,802	3,171	2,783	2,926	2,561
Other gill nets	3,000	2,938	3,052	3,286	3,070
Boat seine	3,728	4,248	3,912	3,899	3,550
Other angling and long lines	10,014	9,441	9,717	8,786	8,447
Others	4,350	4,915	4,355	4,567	4,546

BY FISHERY TYPE, 1977~1981 (Continued)

(16) Sand lance

Unit: Metric tons

	1977	1978	1979	1980	1981
Total Catch	137,340	99,078	110,484	201,226	162,448
Medium trawls	57,338	28,807	36,661	55,050	75,701
Other lift nets	32,513	32,686	33,154	74,875	35,800
"Patchi" seine	3,906	6,454	3,960	9,637	2,715
Boat seine	31,786	26,469	28,658	51,586	38,791
Small set nets	7,861	2,333	2,755	1,532	1,101
Others	3,936	2,329	5,296	8,546	8,340

(17) Lobster, shrimps, prawns

Total Catch	61,022	53,427	59,676	50,505	54,048
Large trawls in N.Pacific Ocean..	4,103	-	-	-	-
Shrimp trawl	3,341	2,901	2,720	3,320	3,525
Large trawl in East China Sea	6,924	4,191	4,510	2,460	1,108
Medium trawls	3,674	4,071	3,852	3,124	3,756
Small trawls	30,142	32,216	36,808	31,424	32,411
Other surrounding nets	2,941	99	3	0	0
Others	9,897	9,952	11,783	10,177	13,248

(18) Crabs

Total Catch	66,571	71,619	80,359	77,560	76,227
Mother ship type crab fishery	8,100	9,700	...	...	...
Medium trawls	4,133	4,280	3,985	3,497	3,452
Small trawls	5,306	5,668	6,277	5,592	6,868
Other gill nets	4,837	3,911	3,408	3,570	3,306
Other fishery (crab cages,etc.)	37,967	43,726	50,326	56,632	61,324
Others	6,228	4,334	1) 16,363	8,269	1,277

(19) Squids, cuttlefishes

Total Catch	501,869	512,579	519,747	686,611	516,500
Large trawl in Southern Ocean	29,122	50,778	30,201	62,321	54,063
Large trawl in East China Sea	18,816	27,784	26,931	26,624	23,117
Medium trawls	21,764	29,628	19,311	28,114	23,124
Set nets	16,188	19,660	15,288	22,863	21,604
Squid angling	376,890	346,043	363,272	451,046	282,091
Others	39,089	38,686	64,744	95,643	112,501

(20) Octopuses

Total Catch	66,873	67,913	65,441	46,105	52,236
Large trawl in Southern Ocean	24,645	26,100	19,818	17	7,845
Medium trawls	2,025	2,445	2,727	3,062	2,565
Small trawls	10,129	8,078	9,828	9,128	10,405
Other long lines	5,808	4,925	7,205	6,934	5,775
Other fishery (octopus pots)	20,177	21,549	22,024	22,377	20,896
Others	4,089	4,816	3,839	4,587	4,750

Note : 1) Including mother ship type crab fishery.

I – 7 INDEX OF FISHERY PRODUCTION BY TYPE OF FISHERIES, 1977~1981 (1980=100)

Group	1977	1978	1979	1980	1981
Fisheries total	93.4	97.0	97.5	100.0	98.1
Marine fisheries and marine cultures	97.5	95.9	95.8	100.0	98.1
Distant water fisheries 1)	113.1	99.9	97.6	100.0	95.0
Offshore fisheries 2)	75.9	88.8	93.9	100.0	95.9
Coastal fisheries 3)	94.7	94.1	93.4	100.0	111.9
Fisheries using fishing boat ...	99.9	105.5	93.2	100.0	110.5
Set net and beach seine fisheries	77.2	55.1	93.8	100.0	116.7
Marine cultures	79.8	88.3	93.4	100.0	103.5
Costal fisheries and marine cultures	88.7	91.7	93.4	100.0	108.7
Inland water fisheries and inland water cultures	84.0	92.9	100.8	100.0	98.7
Whalings	235.5	136.8	96.8	100.0	86.5

Notes : 1) This type of fisheries covers mother ship type fisheries, large trawl in Eastern China Sea, distant water trawls, tuna long line on distant water, skipjack pole-and-line on distant waters, North Pacific Ocean tanner crab fishing, North Pacific Ocean long line and gill net.

2) This type of fisheries covers fisheries operating with powered boat of more than 10 gross tonnage except for fisheries on distant waters, collecting shellfish, collecting seaweeds, set net and beach seine.

3) This type of fisheries covers fisheries operating without fishing boat, with non-powered boat, with powered boat less than 10 gross tonnage including collecting shellfish, collecting seaweeds, set net and beach seine.

4) The calculation method of the index is as follows:

(1) The items adopted amount to 120 commodities; 80 for marine fisheries, 14 for marine cultures, 6 for whaling, 15 for inland water fisheries, and 7 for inland water cultures.

(2) Formula

The index numbers are computed by the Laspeyres formula.

$$Q_{0t} = \frac{\Sigma W_0 (q_t / q_0)}{\Sigma W_0}$$

W_0 : Weights of the base period.

q_0 : Quantity of production in the base period.

q_t : Quantity of production in the current period.

(3) Weight

The weights were determined by the production value for 1979 and 1980 obtained by maltiplying quantity of production by price, and expressed as portions of 10,000.

I — 8 INDEX OF FISHERY PRODUCTION BY SPECIES, 1977~1981 (1980=100)

Item	1977	1978	1979	1980	1981
Marine Fisheries					
Bluefin tuna	104.9	91.0	89.4	100.0	118.2
Albacore	77.6	125.8	95.8	100.0	92.0
Bigeye tuna	104.1	103.6	105.9	100.0	89.7
Yellowfin tuna	69.6	82.3	83.7	100.0	92.4
Striped marlin	82.9	93.6	93.2	100.0	95.9
Brodbill swordfish	111.5	115.8	111.0	100.0	122.0
Skipjack	87.4	104.3	93.1	100.0	81.7
Sharks	116.7	98.7	100.4	100.0	87.4
Salmons	78.0	82.5	105.2	100.0	122.7
Trouts	168.9	89.1	114.6	100.0	120.5
Herring	178.4	60.5	61.1	100.0	79.8
Sardine	64.6	74.5	79.2	100.0	140.6
Anchovy	162.7	101.3	89.4	100.0	106.5
Jack mackerel	163.0	108.0	153.6	100.0	115.2
Mackerels	104.2	124.9	114.6	100.0	69.8
Saury	135.4	192.4	148.4	100.0	85.7
Yellowtail	64.1	89.1	107.1	100.0	89.9
Flounders, soles	99.9	108.8	100.1	100.0	103.0
Cod	88.2	92.1	95.0	100.0	105.6
Alaska pollack	124.3	99.5	99.8	100.0	102.8
Red sea bream	112.3	110.7	115.7	100.0	90.4
Sand lance	68.3	49.2	54.9	100.0	80.7
King crab	506.5	229.0	477.4	100.0	46.4
Common squid	70.7	77.5	85.2	100.0	59.4
Octopuses	147.4	142.1	112.8	100.0	113.3
Sea urchins	111.3	107.3	109.7	100.0	99.3
Sea cucumbers	109.2	113.1	104.6	100.0	90.3
Abalone	106.7	110.2	99.4	100.0	96.5
Kelp	106.6	87.2	105.4	100.0	89.9
Marine Cultures					
Yellowtail	76.9	81.5	103.7	100.0	101.0
"Kuruma" prawn	72.7	76.6	95.7	100.0	107.8
Oyster	81.4	88.8	78.7	100.0	90.0
Common scallop	205.7	167.7	108.0	100.0	146.3
"Nori" laver	77.2	98.5	91.9	100.0	99.5
"Wakame" seaweed	110.9	90.5	88.4	100.0	80.4
Inland Water Fisheries					
Salmons	38.2	43.1	66.6	100.0	91.7
Pond smelt	125.3	95.8	104.6	100.0	95.2
Sweet fish	91.4	90.8	100.7	100.0	104.6
Common carp	79.7	87.0	92.7	100.0	95.6
Crucian carp	102.5	106.8	108.7	100.0	91.4
Inland Water Cultures					
Rainbow trout, etc.	88.2	95.3	92.5	100.0	101.3
Sweet fish	73.5	89.9	105.8	100.0	118.8
Common carp	117.0	116.5	109.7	100.0	95.0
Eel	75.5	87.6	100.5	100.0	92.8

Ⅱ STRUCTURE OF FISHERY PRODUCTION

Ⅱ－1 NUMBER OF MARINE FISHERIES ESTABLISHMENTS, 1977～1981

Unit : Number

Type and size of management	1977	1978	1979	1980	1981
Grand Total	222,395	217,734	219,112	216,433	214,056
Without fishing boat	9,728	10,471	9.051	8,481	8,406
With non-powered boats	1,943	2,964	1,636	1,357	1,141
With powered boats					
Sub-total	151,393	147,751	150,438	149,087	148,071
Less than 3 G.T.	99,043	92,440	93,327	91,260	89,656
3 - 5	31,307	33,384	33,998	34,366	34,703
5 - 10	10,455	10,989	11,495	11,865	12,137
10 - 30	5,999	6,432	7,046	7,125	7,194
30 - 100	2,796	2,808	2,827	2,757	2,711
100 - 200	699	645	675	658	641
200 - 500	577	545	547	536	522
500 - 1,000	308	300	308	298	295
1,000 G.T. and over	209	208	215	222	212
Set nets and beach seine					
Sub-total	8,113	8,135	8,381	8,495	8,383
Large set nets	1,042	1,217	1,113	1,160	1,175
Small set nets	6,470	6,263	6,729	6,789	6,721
Beach seine	601	655	539	546	487
Culture					
Sub-total	51,218	48,413	49,606	49,013	48,055
Laver culture	26,874	24,913	24,882	24,162	22,857
Oyster culture	3,942	3,924	4,121	4,293	4,269
Pearl culture	1,883	1,755	1,783	1,794	1,803
Wakame seaweed culture ...	8,116	6,870	7,203	7,095	7,113
Yellowtail culture	3,316	3,473	3,560	3,457	3,399
Common scallop culture ...	3,682	3,496	3,482	3.191	3.284
Other cultures	3,405	3,982	4,575	5,021	5,330

Note : Excluding the number of fisheries establishments which engaged in fishing for less than 30 days in a year.

Ⅱ－2 NUMBER OF MARINE FISHERY WORKERS, 1977～1981

Unit : Thousand men

	1977	1978	1979	1980	1981
Grand Total	459.3	478.1	467.8	457.4	449.0
Men	379.1	398.0	387.3	376.9	367.8
15 - 39 years old	126.9	134.5	125.4	118.2	111.1
40 - 59 years old	186.9	199.6	197.2	193.6	191.1
60 years old and over	65.3	63.9	64.7	65.1	65.5
Women	80.2	80.1	80.5	80.5	81.2

Ⅱ — 3 NUMBER OF FISHING BOATS, 1977~1981

Unit : Number

Size	1977	1978	1979	1980	1981
Total	434,193	435,784	444,413	449,847	445,060
Marine	408,851	412,423	423,820	428,854	424,207
Non-powered	35,785	29,866	28,402	27,504	25,767
Powered	373,066	382,557	395,418	401,350	398,440
Less than 5 G.T.	341,068	349,044	359,984	364,867	361,780
5 - 9	13,267	14,138	15,211	15,896	16,196
10 - 49	11,406	12,171	12,924	13,190	13,194
50 - 99	4,058	3,916	3,911	3,943	3,823
100 - 199	1,350	1,398	1,453	1,450	1,415
200 - 499	1,664	1,647	1,689	1,758	1,749
500 - 999	77	76	72	71	63
1,000 G.T. and over	176	167	174	175	170
Inland Water	25,342	23,361	20,593	20,993	20,853
Non-powered	8,624	7,324	6,319	5,277	5,640
Powered	16,718	16,037	14,274	15,716	15,213
Less than 5 G.T.	16,709	16,025	14,274	15,707	15,203
5 G.T. and over	9	12	-	9	10
Number of F.R.P. Boats in Marine Total	117,121	142,729	168,493	191,556	210,142
Less than 1 G.T.	41,844	48,766	54,994	63,644	65,221
1 - 3	46,612	57,450	69,025	80,585	89,085
3 - 5	21,917	27,522	32,877	37,120	40,635
5 - 10	4,073	5,350	6,938	7,947	9,102
10 - 20	2,360	3,268	4,215	4,762	5,507
20 G.T. and over	315	373	444	490	592

Ⅱ — 4 GROSS TONNAGES OF FISHING BOATS, 1977~1981

Unit : G. T.

Size	1977	1978	1979	1980	1981
Total	2,719,646	2,687,825	2,790,159	2,833,684	2,806,689
Marine	2,699,877	2,668,772	2,775,048	2,815,194	2,787,955
Non-powered	30,318	27,128	25,250	24,153	23,186
Powered	2,669,559	2,641,644	2,749,797	2,791,041	2,764,769
Less than 5 G.T.	575,815	599,754	627,970	639,939	645,676
5 - 9	103,887	111,423	120,022	125,524	128,458
10 - 49	230,283	239,636	250,153	252,374	250,645
50 - 99	321,244	305,447	304,334	305,776	295,164
100 - 199	192.272	199,491	207,358	205,635	202,151
200 - 499	547,175	544,401	560,814	584,007	
500 - 999	59,215	58,869	56,070	55,189	1,242,674
1,000 G.T. and over	639,667	582,624	623,073	622,598	
Inland Water	19,769	19,052	15,111	18,490	18,734
Non-powered	4,400	3,710	3,381	2,681	3,092
Powered	15,369	15,342	11,729	15,809	15,643
Less than 5 G.T.	15,297	15,252	11,729	15,742	
5 G.T. and over	72	90	-	67	
Gross Tonnages of F.R.P. Boats in Marine Total	287,040.60	362,860	445,406	506,363	564,917
Less than 1 G.T.	29,770.95	34,814	39,718	45,709	47,503
1 - 3	76,724.60	95,199	117,735	135,535	150,192
3 - 5	95,431.18	119,981	143,719	161,905	177,502
5 - 10	31,926.52	42,467	55,554	63,423	73,014
10 - 20	36,304.94	50,203	64,744	73,464	84,753
20 G.T. and over	16,882.41	20.197	23.932	26 326	31.951

III MARKETING OF FISHERY PRODUCT

III -- 1 QUANTITY AND PRICE OF LANDINGS BY COMMODITY AT FISH MARKETS IN PRODUCING AREAS, 1981

Commodity	Quantity of landings	Price
Total of fishes, other marine animals, marine mammals and whales	5,694,946	161
Bluefin tuna		
Fresh	21,129	890
Frozen, round type	30,293	2,254
Frozen, fillet type	423	2,533
Albacore		
Fresh	21,039	542
Frozen, round type	40,471	515
Frozen, fillet type	11	-
Bigeye tuna		
Fresh	11,900	1,333
Frozen, round type	72,226	975
Frozen, fillet type	28	730
Yellowfin tune		
Fresh	26,560	727
Frozen, round type	55,407	541
Frozen, fillet type	10	535
Other tunas		
Fresh	15,236	482
Frozen	3,778	486
Striped marlin		
Fresh	4,067	691
Frozen, round type	7,411	677
Frozen, fillet type	17	630
Broadbill swordfish		
Fresh	6,713	676
Frozen, round type	1,666	688
Frozen, fillet type	7,049	740
Black marlins		
Fresh	3,776	592
Frozen, round type	7,415	570
Frozen, fillet type	42	424
Other swordfish, marlins and sailfish		
Fresh	2,280	759
Frozen, round type	401	414
Frozen, fillet type	370	422
Skipjack		
Fresh	54,684	385
Frozen	152,301	283
Salmons		
Fresh	23,703	808
Frozen	4,312	1,271
Salted	15,099	1,510
Salmons (Pink and cherry salmons)		
Fresh	6,050	618
Frozen	3,051	650
Salted	1,661	580
Sardine	2,086,599	20
Round herring	16,144	90
Jack mackerel	33,974	676
Scads	49,890	228
Mackerels	623,290	102
Saury	125,716	190
Common squid		
Fresh	53,400	449
Frozen	84,833	338
Bastard halibut	6,894	1,506
Flounders, soles		
Fresh	64,874	368
Frozen	59,482	297
Cod		
Fresh	31,186	181
Frozen	34,740	245
Alaska pollack		
Fresh	638,620	64
Frozen	18,983	144
Atka mackerel	93,875	61
"Menuke" Rockfishes		
Fresh	2,709	773
Frozen	18,547	470
"Kichiji" Rockfishes	7,269	800
Sand fish	4,020	490
Deep sea smelts	5,064	167
Sharks		
Fresh	25,337	141
Frozen	3,705	244
Yellow croaker	4,203	142
Other croakers	24,915	213
Lizard fishes	16,089	129
Butter fish	2,917	495
Sharp toothed eel	13,022	237
Hairtail	21,489	179
Gurnards	2,825	288
Skates and rays	8,817	111
Rod sea bream	5,113	1,594
Crimson sea bream	1,216	1,162
Yellow sea bream	7,647	941
Black sea bream	422	1,169
Other sea breams		
Frozen	11,891	1,103
Yellowtails	20,136	837
Spanish mackerels		
Fresh	21,841	407
Frozen	4,305	439

Notes: 1) The quantity of landings is of the 67 fishing ports in the producing areas.
2) The prices here show the average prices per Kg, which are obtained by dividing the value of landings by the quantities of landings.

Unit { Quantity: Metric tons / Price: yen per Kg

Commodity	Quantity of landings	Price
Dolphin fishes	7,645	218
Flying fishes	1,287	331
Frigate mackerel	6,513	229
Mallets	693	343
Common sea bass	713	1,091
Herring		
Fresh	10,657	193
Frozen	1	1,331
Sand lance	106,737	62
Anchovy	14,800	77
Post larval	2,048	306
Other fishes		
Fresh	298,622	253
Frozen	60,719	424
Salted	1,347	1,456
Cuttlefishes		
Fresh	5,568	343
Frozen	365	-
Other squids and cuttlefishes	186,157	737
Octopuses		
Fresh	9,854	304
Frozen	2,748	266
Spiny lobster	77	5,157
"Kuruma" prawn	331	2,684
Other lobster, prawn and shrimps		
Fresh	6,830	1,019
Frozen	1,898	2,387
King crab	7	650
Tanner crab	2,341	1,415
Blue crabs	278	920
Other crabs	37,769	209
Sea urchins		
With shells	320	1,228
Shelled	284	8,157
Sea cucumbers	716	590
Other marine animals		
Fresh	15,714	124
Frozen	9,602	206
Marine mammals	319	103
Whale (by whaling)		
Fresh	0	80
Frozen	18,650	-
Salted	-	-

Commodity	Quantity of landings	Price
Total of shellfishes		
With shell	22,442	344
Shelled	2,100	872
Abalones with shell	279	3,031
Top shell with shell	752	1,101
Hard clams		
With shell	3	398
Short-necked clams		
With shell	480	269
Common scallop		
With shell	15,404	263
Shelled	456	913
Hen clams		
With shell	214	796
Shelled	77	2,999
"Mogai" clam		
With shell	-	-
Shelled	-	-
Oyster		
With shell	141	579
Shelled	893	756
Other shellfishes		
With shell	5,169	310
Shelled	674	649
Total of seaweeds		
Fresh	936	349
Dried	2,288	1,129
"Kombu" tangle		
Dried	2,169	1,071
"Wakame" seaweed		
Fresh	353	136
Dried	61	3,088
"Tengusa" agar-agars		
Fresh	-	-
Drid	6	486
"Funori" seaweek		
Fresh	9	919
Dried	0	1,600
Other seaweeds		
Fresh	573	474
Dried	52	1,113
Total of dried laver 1)	7,552	150
"Kuronori" laver 1)	7,552	150
"Mazenori" laver 1)	-	-
"Aonori" laver 1)	-	-

Note: 1) Quantity is expressed in unit of 10,000 sheets and price 10 sheets

Ⅲ — 2 QUANTITY AND PRICE OF ARRIVALS BY COMMODITY AT TOKYO CENTRAL WHOLESALE MARKETS, 1981

Unit { Quantity : Metric tons
Price : yen per kg

Commodity	Quantity of arrivals	Price
Fresh		
Marine fishes	174,558	901
Bluefin tuna	5,642	1,624
Albacore	385	514
Bigeye tuna	2,053	2,235
Yellowfin tuna	2,011	1,080
Other tunas	2,955	850
Striped marlin	372	1,367
Broadbill swordfish	831	867
Blue marlins	359	608
Other marline	23	685
Skipjacks	7,658	723
Salmons	2,931	836
Salmons (Pink and cherry salmons)	583	986
Sardine	8,330	161
Round herring	95	452
Jack mackerel	9,605	1,064
Mackerels	14,536	253
Saury	6,798	617
Common squid	12,569	599
Bastard halibut	1,241	1,681
Flat fishes	8,024	856
Cod	3,749	357
Atka mackerel	1,193	142
Rock fishes	2.086	1,083
Sharks	2,419	274
Yellow croaker	-	-
Other croakers	1,177	426
Sharp toothed eel	200	1,013
Hairtail	828	689
Red sea bream	1,398	1,665
Crimson sea bream	245	2,068
Yellow sea bream	62	1,241
Yellowtail	20,866	1,075
Fishery	5,900	955
Culture	14,966	1,122
Spanish mackerels	2,021	792
Flying fishes	1,414	439
Common sea bass	516	1,110
Other fishes	35,751	946
Cuttlefish	1,495	929
Other squids and cuttlefishes	2,671	634
Octopuses	622	513
Spiny lobstor	85	6,684
"Kurumaebi" prawn	80	6,208
"Taisho ebi" prawn	324	1,858
Other shrimps	3,391	2,348
Crabs	2,757	1,114
Other marine animals	2,205	4,036
Inland water fishes	4,342	1,384
Shellfishes	52,694	786
Abalones with shell	1,224	3,502
Short necked clam with shell	8,847	315
Oyster shelled	5,819	865
Freshwater clam with shell	4,875	209
Other shellfishes	31,929	886
Frozen		
Bluefin tuna	17,884	2,346
Albacore	4,454	555
Bigeye tuna	40,529	1,127
Yellowfin tuna	6,561	918
Other tunas	-	-
Striped marlin	3,936	951
Bradbill swordfish	8,212	895
Blue marlins	835	587
Other marlins	7	399
Skipjack	465	608
Salmons	18,922	1,174
Salmons (Pink and cherry salmons)	2,856	834
Jack mackerel	5,498	452
Mackerels	6,964	208
Saury	4,425	476
Common squid	21,597	397
Flat fishes	10,310	482
Cod	7,770	273
Rock fishes	3,248	581
Sea breams	6,475	524
Spanish mackerels	2,158	487
Herring	3,754	584
Other fishes	50,625	464
"Mongo-ika" cuttlefish ...	12,770	980
Other cuttlefishes	16,377	407
Octopuses	15,610	490
"Taisho ebi" prawn	962	2,063
Meat of whale		
Fresh	511	1,172
Frozen	1,836	876
Processed fishery product		
Salted and dried		
Sardine, round herring ..	10,673	277
Jack mackerel, scad	10,194	731
Mackerels	3,025	308
Saury	7,444	372
Salted		
Salmons	31,662	1,160
Salmons(Pink and cherry salmons)	2,574	720
Mackerels	273	376
Other salted product	24,530	2,078
Processed whale products .	738	1,414
Seaweeds	5,574	352
Other processed fishers products	202,168	634

Note: The prices here show the average price which are obtained by dividing the value of arrivals by the quantities of arrivals.

Ⅲ－3 PRICES OF MAJOR FISHERY PRODUCTS BY STEPS OF DISTRIBUTION IN TOKYO, 1981

Unit : Yen per kg

commodity		Wholesale price	Broker price	Retail price	Ratio of retail price to wholesale price
Bigeye tuna 1)	frozen	1,094	1,686	4,729	432
Yellowfin tuna 1)	frozen	852	1,064	2,794	328
Skipjack tuna 1)	fresh	814	985	1,751	215
Chum salmon 1)	salted	1,350	1,547	2,133	158
Sardine (Round fish)	fresh	188	248	456	243
Jack mackerel (Round fish)	fresh	1,394	1,682	2,175	156
Mackerel (Round fish)	fresh	292	349	540	185
	frozen	-	-	-	-
Saury (Round fish)	fresh	871	1,000	1,281	147
	frozen	-	-	-	-
Yellowtails 1)	fishery	1,347	1,565	2,478	184
	cultured	1,176	1,266	2,720	231
Common squid (Round fish)	fresh	627	783	1,152	184
	frozen	451	516	794	176
Oyster (Without shell)	fresh	1,126	1,260	2,016	179

Note : 1) Round fish for wholesale and broker price and sliced meat for retail price.

Ⅲ — 4 PROCESSED FISHERY

Proceseed products 1)	1977	1978	1979	1980	1981
Boiled and dried	86.9	82.4	98.0	97.9	93.2
Anchovies	62.5	63.2	78.4	79.6	73.7
Jack mackerel	1.9	1.7	1.1	0.6	-
Sand lance	11.8	7.7	9.1	9.1	9.1
Others	10.7	9.8	11.1	8.6	10.4
Cured	126.9	130.7	126.5	124.6	113.6
Mackerels	35.0	28.9	31.0	27.9	22.5
Skipjack	35.7	38.2	32.4	32.0	29.6
Others	56.2	63.6	63.1	64.7	61.5
Dried	39.9	37.5	30.6	32.7	34.8
Herring	17.4	18.9	14.4	12.1	14.8
Squids	9.4	7.6	5.9	11.5	11.6
Others	13.1	11.0	10.3	9.1	8.4
Dressed frozen	126.0	116.1	145.5	153.1	186.5
Frozen	3,200.1	3,153.2	3,171.6	3,134.2	3,622.4
Albacore, tunas	191.4	210.2	202.1	212.4	193.1
Cod, Alaska pollack	129.1	114.2	101.0	128.7	204.2
Halibut, flounders	103.0	136.2	112.3	113.0	108.8
Mackerels	414.2	518.3	574.8	508.3	319.3
Marlins	20.3	22.9	23.5	22.7	26.7
Sardines, anchovies	420.5	434.1	475.2	515.0	1,053.7
Saury	230.5	281.7	230.6	150.3	141.8
Skipjack	159.9	164.1	148.7	167.4	142.5
Squids, cuttlefishes	205.0	254.3	251.5	282.9	313.5
Whales	38.4	18.2	15.4	15.7	14.2
Minced fish meats	413.4	365.6	367.6	364.2	354.9
Others	874.4	633.4	668.9	653.6	749.7
Kneaded	1,087.0	1,037.2	976.2	911.1	948.9
"Chikuwa" 2)	214.4	190.9	177.2	174.4	180.7
Fish sausage	116.9	107.2	106.8	87.4	91.9
"Kamaboko" 3)	428.2	427.1	402.4	362.1	359.6
Others	327.5	312.0	289.8	287.2	316.7
Manure and feed	915.6	951.4	962.6	952.5	992.8
Fish meal	496.8	497.4	560.0	517.5	514.0
Dried press cake	257.0	299.9	238.5	254.4	290.8
Others	161.8	154.1	164.1	180.6	188.0
Oil and fat	208.2	243.5	253.4	263.1	279.1
Fish oil, fish viscera oil	187.2	230.7	245.8	255.9	273.0
Whale oil	21.0	12.8	7.6	7.2	5.8
Salted	227.5	242.7	250.9	255.9	272.1
Alaska pollack roe, cod roe	36.4	23.0	25.0	32.2	41.8
Cod, Alaska pollack	17.4	19.0	18.4	18.6	19.1
Herring roe, salmon roe	12.8	12.5	10.4	11.9	8.6
Mackerels	44.1	75.1	62.0	63.4	59.1
Salmons	53.0	61.7	78.2	79.9	81.4
Trouts	38.0	11.0	17.5	17.5	21.3
Others	25.8	40.4	39.4	32.4	40.8

PRODUCTS, 1977～1981

Unit { Thousand metric tons / Canned: ton

Processed products	1977	1978	1979	1980	1981
Salted and dried	242.7	246.0	255.3	275.5	260.2
Jack mackerel	48.7	50.2	52.4	51.9	47.0
Mackerels	26.7	28.6	30.0	30.2	27.4
Sardines, anchovies	78.2	74.8	71.0	77.3	68.4
Saury	18.4	28.1	32.2	35.2	34.2
Others	70.1	64.3	69.7	80.9	83.2
Smoked	10.0	12.1	11.3	10.6	11.7
Salmons, trouts	1.4	1.4	1.7	1.7	1.9
Squids, cuttlefishes	1.8	3.8	4.0	3.8	5.5
Whale meat	1.0	1.1	1.1	0.9	0.4
Others	5.8	5.8	4.5	4.2	3.9
Others	314.5	352.2	351.4	337.5	338.8
Canned 4)					
Total	405,450	406,305	397,532	448,415	425,771
(Actual number of thou. cases)	(38,540)	(37,442)	(36,688)	(41,838)	(41,398)
Shellfish	12,699	11,248	12,171	12,521	10,528
Crabs	2,250	2,849	3,363	4,785	4,555
Jack mackerel	37	-	-	-	-
Mackerels	211,074	222,138	203,803	235,932	169,648
Prawns rimps	40	32	53	71	56
Salmons, trouts	17,813	1,656	4,814	8,284	9,487
Sardines, anchovies	45,506	51,134	53,957	67,575	92,276
Saury	9,691	10,629	8,043	7,306	10,290
Squids, cuttlefishes	3,577	3,635	3,340	4,041	3,955
Tunas, skipjack	84,276	87,563	95,130	94,520	111,042
Whale	10,989	9,677	7,620	7,833	8,261
Others	7,498	5,744	5,238	5,548	5,673

Notes : 1) Excluding dried seaweeds.

2) Baked products of kneaded fish meat with seasonings.

3) Steamed products of kneaded fish meat with seasonings.

4) Surveyed by the Canners Association of Japan.

Ⅲ－5 VALUE OF IMPORTS AND EXPORTS

Imports

Year	Total	Live	Fresh and frozen			Salted dried and smoked
			Shrimps	Skipjack, tunas and marlins	Others	
1970	114,628	5,851	49,329	9,070	18,698	12,478
1971	153,345	7,779	73,335	11,538	32,832	13,838
1972	190,338	12,418	89,918	10,422	36,754	22,878
1973	300,074	17,752	118,207	14,171	71,137	40,052
1974	323,240	19,862	117,571	21,684	90,242	42,059
1975	384,529	24,862	137,517	39,527	107,412	35,166
1976	563,649	30,680	223,128	46,206	150,745	58,279
1977	657,714	32,437	219,509	68,205	191,668	63,167
1978	676,455	32,132	222,528	46,963	238,577	78,434
1979	930,764	29,126	313,168	69,552	331,739	111,625
1980	764,319	32,023	248,866	59,158	267,176	59,969
1981	879,881	32,022	279,642	70,113	330,894	80,361

Exports

Year	Total	Fresh and Frozen		Salted, dried and smoked		
		Skipjack, tunas and marlins	Others		Jack mackerel and mackerels	Salmons
1970	140,717	13,983	21,573	4,248	19,573	16,181
1971	146,662	13,794	25,487	4,230	23,140	18,796
1972	162,179	17,752	36,629	4,513	23,286	17,196
1973	173,494	21,632	44,688	4,745	26,259	10,419
1974	201,965	24,331	42,714	5,398	35,554	12,993
1975	168,696	3,289	38,357	5,783	35,732	15,102
1976	220,833	13,958	49,288	5,942	34,477	17,625
1977	184,180	12,906	37,389	5,877	44,423	3,723
1978	171,250	13,849	30,654	5,736	35,406	3,144
1979	196,363	10,957	35,175	6,723	35,442	139
1980	265,314	25,064	36,181	8,370	52,830	126
1981	253,830	12,791	34,234	9,897	43,740	1,343

BY COMMODITY, 1970～1981

Unit: Million yen

Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Dried laver	Others
772	6,689	1,474	229	3,561	3,099	3,378
610	1,414	1,315	356	5,721	1,337	3,272
775	3,266	1,550	351	7,384	768	3,854
1,309	8,738	2,175	445	14,784	2,958	6,339
2,142	3,404	2,158	569	18,934	59	6,563
1,748	5,856	3,147	904	22,884	221	6,285
2,153	5,485	4,871	665	30,660	42	10,735
1,596	24,827	6,079	452	32,182	264	12,328
1,759	9,341	7,839	1,252	28,042	-	9,588
2,386	9,773	8,996	1,371	38,717	-	14,311
3,700	17,251	13,828	1,523	41,791	-	19,034
2,368	10,662	13,926	1,483	40,976	-	17,434

Unit: Million yen

Canned				Oil and fat		Pearls	Others
Sardines and anchovies	Tunas	Crabs	Others	Whale oil	Others		
79	28,862	2,929	5,552	2,597	1,307	14,725	9,110
99	23,016	3,966	5,218	4,681	2,431	12,599	9,205
338	27,091	1,724	5,875	1,555	1,893	14,189	10,138
712	24,440	315	5,072	1,693	3,048	17,867	12,604
834	29,119	644	5,627	3,930	11,268	17,484	12,069
1,343	27,664	454	3,646	1,959	5,481	17,679	12,207
7,536	35,932	890	4,367	1,447	7,696	22,920	19,355
8,227	25,626	581	3,784	1,412	12,059	10,296	17,877
7,951	25,007	62	3,654	522	17,665	8,818	18,782
10,164	26,536	25	3,233	-	15,910	32,090	19,969
13.170	35,461	59	3,450	-	13,809	51,392	25,337
21,168	31,989	70	2,832	-	13,873	54,285	27,608

Ⅲ — 6 VALUE OF IMPORTS AND

Imports

Year	Total	U. S. A.	Republic of Korea	Taiwan	Canada	Indonesia	India
		1	2	3	4	5	6
1970	114,628	8,700	14,203	9,151	1,846	3,791	5,317
1971	153,345	10,236	17,327	13,324	3,396	8,336	8,601
1972	190,338	7,570	24,623	17,322	7,310	14,992	12,358
1973	300,074	24,243	42,273	25,338	17,401	22,235	17,750
1974	323,240	16,326	62,763	28,746	14,167	24,504	17,391
1975	385,529	21,768	85,639	44,186	13,363	29,513	27,847
1976	563,649	28,441	115,752	54,625	27,547	48,431	40,984
1977	657,714	62,310	129,344	67,545	44,879	48,802	35,229
1978	676,455	104,710	100,497	66,459	53,974	47,024	36,340
1979	930,764	143,769	132,817	80,065	59,620	60,345	55,978
1980	764,319	98,963	116,568	79,868	29,214	54,101	44,436
1981	879,881	147,228	133,037	84,206	41,081	49,409	54,439

Exports

Year	Total	U. S. A.	Netherlands	Nigeria	Taiwan	Hong Kong	Papua New Guinea
		1	2	3	4	5	6
1970	140,717	41,951	4,982	34	1,830	4,123	1,177
1971	146,662	40,107	6,985	134	2,071	3,011	1,356
1972	162,179	59,753	4,992	507	2,996	4,053	1,478
1973	173,494	61,664	4,088	386	5,939	4,662	2,325
1974	201,965	62,373	14,400	1,176	5,841	4,378	3,157
1975	168,696	38,142	9,935	3,851	8,363	5,290	2,697
1976	220.833	57,042	11,972	4,718	11,969	7,403	4,623
1977	184,180	39,447	14,171	11,117	9,500	7,636	4,709
1978	171,250	33,574	18,813	14,785	11,266	7,833	6,368
1979	196,363	36,122	15,076	12,158	11,723	10,539	4,693
1980	265,314	54,175	12,126	16,287	9,862	17,559	5,789
1981	253,830	49,136	11,149	21,997	10,381	15,290	7,747

EXPORTS BY COUNTRY, 1970～1981

Unit: Million yen

China	Spain	Australia	Thailand	Hong Kong	Mexico	U. S. S. R.	Malaysia	Others
7	8	9	10	11	12	13	14	15
10,815	2,519	5,779	5,651	3,819	7,355	3,238	2,766	29,678
11,049	9,332	7,206	7,902	5,651	7,856	2,936	5,063	35,130
15,261	8,763	8,516	10,295	5,485	7,102	2,481	6,158	42,102
20,824	9,444	10,795	14,082	5,879	12,323	6,067	8,122	63,298
29,020	17,872	11,179	12,901	7,069	7,075	10,307	5,827	58,093
22,651	19,655	11,235	20,934	8,743	7,891	8,383	6,236	57,385
24,750	27,844	21,160	28,846	15,257	13,516	10,947	15,122	90,427
19,962	19,754	25,496	23,733	18,981	10,213	14,662	15,647	121,157
32,489	24,701	24,328	24,305	16,530	14,877	13,978	11,537	104,706
43,252	43,260	41,503	38,447	19,116	12,642	16,241	18,864	164,845
49,433	38,410	28,391	29,034	14,710	8,955	15,946	10,488	145,802
48,999	32,100	42,057	35,912	15,679	8,254	16,789	11,857	158,834

Unit: Million yen

Canada	United Kingdom	Australia	Singapore	Saudi Arabia	Philippines	S. Africa	Switzerland	Others
7	8	9	10	11	12	13	14	15
3,932	16,835	5,322	5,220	192	5,760	1,311	3,735	39,247
4,833	15,761	4,971	2,834	146	6,549	1,428	3.507	47,216
5,963	12,622	4.741	2,328	373	5.200	1,175	4,533	44,662
7,437	10,520	5,363	3,463	902	5,301	1,973	6,146	46,826
7,151	10,983	8,383	3,618	1,406	8,316	3,091	4,729	57,764
6,843	12,354	5,227	5,428	1,713	7,770	2,881	4,668	48,939
8,831	14,877	8,747	3,798	2,287	8,300	4,097	6,204	59,030
6,033	4,850	5,862	4,763	4,491	5,891	3,989	3,864	62,150
5,766	5,056	3,985	3,920	3,300	3,179	2,979	2,583	47,843
6,968	6,235	3,924	3,519	3,273	3,789	2,867	8,265	67,112
7,184	7,389	4,856	5,606	7,032	6,165	5,759	12,747	92,778
5,290	8,597	6,080	4,479	6,239	6,429	7,786	9,941	83,289

Ⅲ－7 VALUE OF IMPORTS AND EXPORTS (by Country, and by Commodity)

Imports

Country of origin		Total	Live	Fresh and			
				Shrimps	Squids & cuttlefish	Octopuses	Skipjack, tunas and marlins
Total		879,881	32,022	279,642	43,278	39,871	68,754
Republic of Korea	1	133,037	3,298	3,113	10,048	6,765	36,041
U.S.A	2	147,228	312	165	694	-	892
Taiwan	3	84,206	25,630	10,806	1,216	8	21,942
Indonesia	4	49,409	2	44,066	11	-	904
China	5	48,999	-	30,251	61	12	395
India	6	54,439	-	54,005	322	-	-
Spain	7	32,100	-	-	8,374	21,611	476
Canada	8	41,081	67	1,145	676	13	386
Thailand	9	35,912	372	16,464	6,387	794	-
Australia	10	42,057	481	31,284	-	1	22
U.S.S.R.	11	16,789	0	488	115	-	-
Chile	12	13,780	-	-	2	-	-
Hong Kong	13	15,679	359	6,746	478	0	3
Malaysia	14	11,851	-	8,300	261	-	-

Exports

Country of destination		Total	Fresh and frozen products	Salted dried and smoked		
					Mackerels	Salmons
Total		253,830	47,025	9,897	43,740	1,343
U.S.A	1	49,136	15,566	1,547	104	5
Hong Kong	2	15,290	412	2,958	93	1
Nigeria	3	21,997	-	3	21,324	-
West Germany	4	10,130	923	21	8	-
Switzerland	5	9,941	33	5	-	-
Netherland	6	11,149	171	25	64	27
Taiwan	7	10,381	450	50	-	6
United Kingdom	8	8,597	138	28	25	497
Italy	9	2,831	1,728	10	46	-
Canada	10	5,290	222	75	89	0

OF FISHERY PRODUCTS, 1981

Unit: Million yen

frozen			Salted dried and smoked	Raw agar-agar	Fish meals	Pearls	Oil and fat	Prepared	Others
Salmons & trouts	Crabs	Others							
74,440	33,075	141,589	80,361	1,053	10,662	13,926	1,483	40,976	18,749
310	3,964	40,539	9,193	534	-	-	-	8,633	10,599
65,977	25,166	13,030	37,653	24	215	190	36	1,074	1,800
-	128	5,771	509	36	-	-	11	17,833	316
-	-	133	1,136	-	-	1,861	32	666	598
7	1,246	4,800	2,736	-	3	5,502	-	2,735	1,251
-	-	49	2	-	-	48	-	6	7
-	-	1,276	16	8	-	-	264	76	-
5,920	778	13,712	17,984	-	14	-	-	385	1
-	-	5,094	4,219	-	-	101	-	2,469	12
-	-	4,484	-	-	-	3,416	-	2,345	24
1,264	1,482	10,545	541	-	902	-	39	1,413	-
5	-	5,330	475	9	4,951	-	-	1,108	1,900
-	57	7,147	134	-	-	737	-	12	6
-	-	46	2,903	-	-	145	-	202	-

Unit: Million yen

Canned products				Oil and fat	Peals	Others
Sardines and anchovies	Tunas	Crab	Others			
21,168	12,086	70	22,735	13,873	54,285	226,222
537	4,081	43	4,434	148	18,474	44,939
335	13	4	279	0	5,319	9,414
650	6	2	6	-	-	21,991
-	34	-	226	289	8,426	9,927
45	958	-	1,222	-	7,534	9,797
182	91	-	100	10 103	269	11,032
-	29	-	40	124	33	732
711	7	-	4,301	1,716	922	8,345
0	37	2	17	0	713	2,553
17	2,145	2	1,497	26	1,028	5,101

Ⅲ－8 FOOD BALANCE SHEET ON

Description	1977	1978	1979	1980	1981
(FISH AND SHELLFISH) (Live weight base)	10,126	10,186	9,948	10,425	10,689
Domestic production					
For domestic consumption	10,380	10,695	10,736	10,734	11,494
Fresh and frozen	2,931	3,087	2,896	3,009	3,077
Dried, salted and smoked ..	1,972	2,120	2,244	2,393	2,387
Kneaded	2,233	2,100	1,968	1,870	1,938
Fish sausage	173	159	149	120	127
Canned	256	276	289	274	304
Feeds	2,815	2,953	3,190	3,068	3,661
For exports	852	1,046	1,015	1,023	1,019
Fresh and frozen	196	202	194	202	158
Canned	466	530	535	603	494
Others for food use	9	8	9	12	15
Feeds	181	306	277	206	352
Change in stock	742	Δ 76	Δ 96	357	Δ 143
For food use	441	Δ 32	Δ 90	Δ 35	Δ 34
For feeds	301	Δ 44	Δ 6	392	Δ 109
Imports	1,848	1,479	1,707	1,689	1,681
For food use	999	1,082	1,235	1,027	1,284
For feeds	849	379	472	662	397
Domestic supply	12,823	12,062	12,127	12,768	12,767
For food use	9,526	8,847	8,666	9,102	8,863
Domestic production	7,678	7,368	6,959	7,421	7,182
Imports	1,848	1,479	1,707	1,681	1,681
For feeds	3,297	3,215	3,461	3,666	3,904
Domestic production	2,448	2,818	2,989	3,004	3,507
Imports	849	397	472	662	397

FISHERY PRODUCTS, 1977~1981

Unit: Thousand metric tons

Description	1977	1978	1979	1980	1981
(WHALE)					
Domestic production	42	24	19	19	20
For domestic consumption	42	24	19	19	20
For exports	0	0	0	0	0
Imports	37	34	27	25	19
Domestic supply	79	58	46	44	39
For food use	79	58	46	44	39
For feeds	-	-	-	-	-
(SEAWEED) (dried weight base)					
Domestic production	128	128	129	139	120
For domestic consumption	123	124	123	133	115
For exports	5	4	5	6	5
Imports	48	43	49	55	51
Domestic supply	171	166	174	188	175
For food use	142	134	143	157	149
For feeds	29	32	31	31	26
Per capita food supply (unit : kgs)					
Fish and shellfishes	66.3	67.2	65.0	65.9	66.4
Whales	0.7	0.5	0.4	0.4	0.3
Seaweeds	1.2	1.2	1.2	1.3	1.3
Population (Unit: Million persons) 1).....	114	115	116	117	118

Note: 1) Data are based on the surveys undertaken as of October 1st of the year.

Ⅲ－9 AVERAGE CONSUMPTION IN QUANTITY OF FISHERY

1) Workers household(Cities With population of 50,000 and over)

Unit: gram

Item	1977	1978	1979	1980	1981
Fresh and frozen					
Cod, Alaska pollack	752	732	732	774	706
Flounders, halibuts	2,765	2,641	2,653	2,754	2,856
Jack mackerel	2,577	2,211	2,390	2,122	1,836
Mackerels	3,231	3,170	2,740	2,806	2,678
Salmons, trouts	1,070	992	943	1,056	1,046
Sardines, anchovies	3,014	2,498	2,235	2,285	2,233
Saury	1,389	2,158	2,479	2,177	1,763
Sea breams	1,041	1,100	1,139	1,013	968
Shellfishes	5,799	5,775	5,673	5,400	5,709
Shrimp, prawn, crab	3,671	4,131	3,903	3,855	3,782
Skipjack	1,190	1,348	1,289	1,159	1,004
Squids, cuttlefishes	6,322	6,154	6,365	7,522	6,991
Tunas, marlins	3,498	3,925	3,617	3,540	3,513
Yellowtail	2,053	2,282	2,566	2,433	2,184
Others	15,187	15,138	16,471	14,617	14,501
Processed fishery products	628	647	609	687	639
Boiled and dried anchovies	13.10	14.33	14.96	14.08	14.75
Canned (case)	530	482	---	---	---
Cured	947	853	811	797	883
Dried anchovies	1,330	1,328	1,416	1,415	1,163
Dried jack mackerel	2,382	2,436	2,482	2,622	2,518
Dried "Kombu" and "Wakame"kelp					
Dried squids	206	184	167	185	163
Fish sausage	2,848	2,467	2,451	1,866	1,614
Kneaded	---	---	---	---	---
Salted salmons and trouts .	3,229	3,245	3,329	3,716	3,769
Others	---	---	---	---	---
Whale meat	772	572	520	513	549
Beef	8,903	9,946	10,103	9,639	9,891
Pork	20,143	20,298	20,986	21,357	20,195
Chicken	12,286	13,210	14,111	14,440	14,179
Ham, sausage	7,705	8,007	8,212	8,666	8,741
Milk, eggs	---	---	---	---	---
Seasonings	523	463	451	404	371
Expense for dining out.....	---	---	---	---	---
Number of family members ...	3.78	3.77	3.80	3.78	3.75

PRODUCTS PER HOUSEHOLD, 1977~1981

(2) Farm household

Unit: gram

Item	1977	1978	1979	1980	1981
Fishery products					
Fresh and frozen					
Cod, Alaska pollack	2,250	2,110	2,200	2,540	2,390
Flounders, halibuts	3,090	2,710	2,930	2,960	3,080
Jack mackerel	2,660	2,400	2,470	2,060	2,050
Mackerels	9,850	8,720	8,090	9,430	7,620
Salmons. trouts	---	---	---	---	---
Sardines, anchovies	7,250	5,530	5,520	6,050	5,570
Saury	2,420	3,510	4,170	4,160	3,200
Sea breams	850	870	890	940	910
Shellfishes	5,140	5,200	4,700	4,730	5,440
Shrimp. prawn. crab	2,140	2,370	2,340	2,590	2,590
Skipjack	3,630	4,160	3,950	3,850	3,140
Squids, cuttlefishes	6,960	6,710	7,120	8,660	7,850
Tunas, marlins	3,780	3,950	4,030	4,240	4,180
Yellowtail	2,230	2,390	3,230	3,080	2,880
Others	---	---	---	---	---
Processed fishery products					
Boiled and dried	2,590	2,530	2,650	2,670	2,830
Canned	4,160	3,920	3,930	3,850	3,730
Cured	840	850	860	860	830
Dried "nori"	---	---	---	---	---
Dried "kombu"and"Wakame"Kelp	2,260	2,140	2,310	2,500	2,600
Dried squids	520	540	570	750	730
Fish sausage	2,460	1,650	1,580	1,540	1,400
Kneaded	11,380	10,650	10,260	10,700	10,080
Salted salmons and trouts	3,590	3,260	3,780	4,320	4,040
Others	---	---	---	---	---
Whale meat	---	---	---	---	---
Beef	4,640	5.090	5,150	5,020	5,450
Pork	14,170	14,540	16,600	16,220	16,250
Chicken	11,580	11,890	12,810	13,130	12,940
Ham, sausage	6,780	6,360	6.860	---	---
Milk, eggs	---	---	---	---	---
Seasonings	1,130	1,100	1,170	1,080	1,000
Expense for dining out	---	---	---	---	---
Number of family members	4.49	4.48	4.45	4.40	4.40

Ⅲ－10 AVERAGE CONSUMPTION IN VALUE OF FISHERY

(1) Workers household (Cities With population of 50,000 and over)

Unit: yen

Item	1977	1978	1979	1980	1981
Net income	3,418,882	3,672,984	3,963,132	4,196,232	4,445,244
Food expense	775,067	807,652	836,881	886,159	913,609
Fishery products	112,292	128,373	132,758	138,298	141,104
Fresh and frozen	64,096	67,118	69,477	72,278	72,746
Cod, Alaska pollack	497	512	518	572	526
Flounders, halibuts	2,870	2,995	3,137	3,398	3,754
Jack mackerel	2,814	2,495	2,756	2,667	2,583
Mackerels	1,480	1,357	1,226	1,371	1,405
Salmons, trouts	1,458	1,415	1,413	1,586	1,661
Sardines, anchovies	1,153	916	837	931	937
Saury	1,369	1,692	1,634	1,518	1,546
Sea breams	1,862	2,114	2,257	2,289	2,213
Shellfishes	5,173	5,332	5,381	5,684	6,014
Shrimp, prawn, crab	7,297	8,305	8,614	8,959	9,073
Skipjack	1,774	1,784	1,874	1,895	1,756
Squids, cuttlefishes	6,529	6,608	6,871	7,268	6,799
Tunas, marlins	8,130	8,790	8,768	9,308	9,274
Yellowtail	4,497	4,974	5,182	5,358	5,146
Others	17,192	17,829	11,354	19,474	20,059
Processed fishery products	57,169	60,420	62,483	65,187	67,463
Boiled and dried anchovies	754	810	793	907	869
Canned	2,544	2,716	2,734	2,832	3,099
Cured	1,447	1,415	1,456	1,452	1,517
Dried "nori"	4,633	5,067	5,547	5,797	5,677
Dried"Kombu"and"Wakame"Kelp	2,299	2,285	2,387	2,763	2,803
Dried squids	583	578	606	632	576
Fish sausage	1,941	1,709	1,682	1,286	1,141
Kneaded	10,596	11,345	11,484	11,254	12,121
Salted salmons and trouts	6,016	6,634	6,896	7,406	7,651
Others	25,356	27,861	28,898	30,858	32,009
Whale meat	1,027	835	798	833	895
Beef	24,627	27,675	28,904	30,116	31,017
Pork	29,643	29,429	29,090	29,596	29,944
Chicken	13,767	13,529	13,762	14,405	14,831
Ham, Sausage	11,967	12,619	13,137	14,385	14,871
Milk, eggs	43,079	41,543	42,661	44,895	45,859
Seasonings	1,070	998	975	934	923
Expense for dining out	103,909	114,408	126,467	134,092	130,358
Number of family members	3.78	3.77	3.80	3.78	3.75

PRODUCTS PER HOUSEHOLD, 1977~1981

(2) Farm household

Unit: yen

Item	1977	1978	1979	1980	1981
Net income	3,984,500	4,221,100	4,417,700	4,515,200	4,772,500
Food expense	798,400	828,500	855,100	903,500	939,900
Fishery products	119,659	123,372	127,855	141,749	143,337
Fresh and frozen	68,089	70,689	74,641	78,659	81,753
Cod, Alaska pollack	1,421	1,416	1,494	1,836	1,861
Flounders, halibuts	2,901	2,832	3,034	3,465	3,631
Jack mackerel	2,348	2,336	2,530	2,308	2,559
Mackerels	3,862	3,257	3,234	3,751	3,774
Salmons, trouts	---	---	---	---	---
Sardines, anchovies	2,096	1,558	1,633	1,772	1,816
Saury	1,765	2,336	2,430	2,444	2,251
Sea breams	1,792	1,841	1,965	2,186	2,236
Shellfishes	2,729	3,009	2,942	3,101	3,699
Shrimp, prawn, crab.....	4,007	4,602	4,901	5,651	6,002
Skipjack	3,493	3,611	3,599	3,830	3,691
Squids, cuttlefishes	6,841	6,933	7,656	8,867	8,313
Tunas, marlins	8,801	9,416	9,708	10,818	11,300
Yellowtail	4,164	4,744	5,551	6,188	6,145
Others	21,869	22,798	23,964	22,442	24,475
Processed fishery products..	52,636	52,653	53,214	63,090	61,584
Boiled and dried anchovies .	2,981	3,131	3,453	3,522	3,819
Canned	2,686	2,502	2,563	2,694	2,746
Cured	1,718	1,838	2,005	2,086	2,116
Dried "nori"	4,601	4,928	5,126	5,602	5,432
Dried "Kombu"and"Wakame"kelp	3,211	3,203	3,380	3,880	3,932
Dried squids	1,511	1,735	1,919	2,479	2,341
Fish sausage	1,486	998	1,009	1,007	975
Kneaded	8,898	9,498	9,655	10,689	10,939
Salted salmons and trouts.	5,872	5,734	6,686	7,438	7,465
Others	19,672	19,086	19,981	23,693	21,819
Whale meat	---	---	---	---	---
Beef	12,145	13,860	14,615	14,947	16,634
Pork	20,384	21,231	21,806	22,328	22,719
Chicken	11,424	11,988	12,182	13,233	13,565
Ham	5,612	5,985	6,408	6,924	7,473
Milk, eggs	38,286	36,992	38,800	40,700	41,259
Seasonings	2,042	2,120	2,291	2,286	2,213
Expense for dining out.....	51,832	61,310	65,251	73,172	76,726
Number of family members ..	4.49	4.48	4.45	4.40	4.40

Ⅳ ECONOMY OF FISHERY ESTABLISHMENTS

Ⅳ－1 NATIONAL AVERAGE OF FISHERIES HOUSEHOLD ECONOMY, 1977～1981

Items	Unit	1977	1978	1979	1980	1981
Number of family members	Person	4.5	4.3	4.3	4.3	4.1
Number of non-powered fishing boats used	Boat	0.3	0.3	0.3	0.3	0.3
Number of powered fishing boats used	"	1.0	1.0	1.0	1.0	1.1
Tonnage of powered fishing boats used	Ton	2.5	2.6	2.7	2.7	2.7
Number of fishing days	Day	148	151	150	148	145
Number of workers on the sea	Person	468	478	478	474	456
Working hours on the sea	Hours	2,591	2,552	2,558	2,502	2,391
Catches	kg	10,871	11,388	9,916	9,605	9,105
Price of fish cought	Yen/kg	379	358	449	480	-
Fishery earning	1000 yen	4,195.0	4,158.9	4,528.3	4,695.6	4,468.0
Non-fishery earning	"	484.7	503.6	458.8	413.8	408.5
Non-business earning	"	1,532.7	1,641.7	1,885.4	2,030.8	7,269.0
Fishery expenditure	"	1,874.0	1,895.6	2,135.4	2,258.7	2,282.4
Employees wages	"	436.0	417.9	454.4	396.1	361.9
Maintenance of fishing boats	"	163.5	158.1	165.4	162.5	161.3
Expenditure for fishing gears	"	198.2	183.1	183.2	179.8	178.4
Oil	"	249.7	254.3	345.7	471.9	493.6
Miscellaneous facilities	"	23.1	18.9	21.9	20.1	13.3
Depreciation	"	360.4	413.1	480.5	508.2	552.5
Non-fishery business expenditure	"	243.1	284.5	243.9	197.7	-
Non-business expenditure	"	93.7	114.4	132.6	120.2	-
Household expenditure	"	2,552.5	2,722.4	2,890.1	3,114.8	3,262.4
Taxes, public charges and obligation	"	331.8	389.8	443.6	467.3	520.5
Income of fishery household	"	4,001.5	4,009.7	4,360.6	4,563.6	4,516.6
Business income	"	2,562.6	2,482.4	2,607.8	2,653.0	-
Fishery income	"	2,321.0	2,263.3	2,392.9	2,436.9	2,185.6
Non-fishery income	"	241.6	219.1	214.9	216.1	209.4
Non-business income	"	1,438.9	1,527.3	1,752.8	1,910.6	2,121.6
Surplus of fishery household economy	"	1,117.2	897.4	1,026.9	981.5	733.7
Property						
Fixed assets	"	6,721.6	6,980.3	7,660.0	7,921.3	8,240.3
Land	"	665.6	638.9	876.2	886.4	894.0
Building	"	3,810.2	3,561.1	3,718.3	3,862.3	3,962.0
Hull of fishing boats	"	762.0	966.0	1,055.6	1,067.7	1,139.6
Engines of fishing boats	"	738.6	896.7	1,018.1	1,103.9	1,195.6
Fishing nets and long lines	"	225.8	246.4	277.1	271.3	286.9
Non-fixed assets	"	5,015.5	5,614.4	6,362,8	6,979.8	-
Debts	"	1,256.1	1,624.5	1,887.4	1,914.1	2,092.0

Notes: 1) Fishery household in this table refers to the household engaging in fishing with less than 10 tons fishing boat. The data show the average per fishery household.
2) Income of fishery household = Fishery income + Non-fishery business income + Non-business income. Surplus of fishery household economy = Income of fishery household - (Taxes, public charges and obligations + household expenditure)
3) Duration of this statistics is for a calendar year. Property is accounted at the beginning of the year.

Ⅳ－2 NATIONAL AVERAGE OF SMALL AND MIDDLE SIZE FISHERY ENTERPRISE ECONOMY, 1977～1981

Item 1), 2)	Unit	1977	1978	1979	1980	1981
Gross tonnage of fishing boats used	Ton	98.84	94.81	93.18	93.61	88.21
Number of workers on the boat	Person	15.6	15.1	14.4	13.9	12.9
Earnings from fishery	1000 yen	135,329	121,128	124,780	134,152	131,323
Fishery expenditures	"	126,702	120,538	121,091	135,914	132,856
Employees wages	"	51,404	47,080	45,946	47,396	46,506
Maintenance of fishing boats ..	"	9,354	9,257	8,852	8,822	8,427
Expenditure for fishing gears .	"	4,736	4,355	4,230	4,671	4,428
Oil	"	15,408	13,986	17,515	28,159	28,732
Bait	"	4,015	4,165	3,851	3,850	3,583
Ice	"	1,346	1,386	1,308	1,409	1,320
Fish container	"	1,692	1,534	1,598	2,070	1,789
Miscellaneous materials	"	1,368	1,512	1,431	1,428	1,433
Miscellaneous facilities	"	292	220	232	254	214
Rents and charge	"	2,314	2,373	2,463	2,850	2,607
Brokerage	"	5,787	5,082	5,380	5,861	5,605
Costs for business	"	6,189	6,467	6,078	6,372	6,439
Tax upon fishery business	"	744	1,008	965	915	733
Other	"	5,786	5,558	6,205	6,893	6,338
Depreciation	"	16,268	16,555	15,037	14,954	14,703
Estimated family wages	"	1,214	1,343	1,403	1,457	1,477
Fishery profit 3)	"	7,413	Δ 753	2,286	Δ 3,219	Δ 3,010
Assets (final)	"	149,556	159,038	160,532	161,269	159,480
Fixed assets	"	76,727	81,428	87,578	91,909	88,998
Fixed assets for fishery	"	52,680	51,770	60,053	62,137	61,064
Non-fixed assets	"	72,829	77,610	72,954	69,360	70,482
Liabilities (final)	"	134,144	143,463	144,472	149,979	153,986
Net worth	"	15,412	15,575	16,060	11,290	5,494
Net profit	"	5,483	2,437	2,275	Δ 2,189	Δ2,504
Interest on liabilities	"	6,361	6,196	6,413	7,604	7,948
Sales profit 4)	%	5.5	Δ 0.6	1.8	Δ 2.4	Δ 2.3
Costs for physical expenditure ...	1000 yen	59,235	57,824	59,005	70,990	69,723
Added value	"	76,094	63,304	65,775	63,162	61,600
Added value per worker	"	4,878	4,192	4,568	4,544	4,775
Wage per worker	"	3,295	3,118	3,191	3,410	3,605
Capital equipment ratio 5)	"	3,665	4,089	4,544	5,109	5,524
Ratio of net worth out of total capital	%	10.3	9.8	10.0	7.0	5.9
Ratio of profit out of total capital	"	4.0	1.6	1.4	Δ 1.4	Δ 1.6

Notes: 1) Small and middle size fishery enterprise refers to the enterprise engaging in fishery with fishing boats of 10 gross tonnage and over but excluding the big enterprises with capital paid of 100 million yen and over.
2) Data show an average per fishery enterprise.
3) Fishery profit = Earnings from fishery - fishery expenditures - estimated family wages.
4) Sales profit = Fishery profit ÷ earnings from fishery x 100.
5) Capital equipment ratio means fixed assets for fishery per worker engaged normally in fisheries.

REFERENCE TABLES

1 CATCH BY COUNTRY OF THE WORLD, 1976~1980

Unit: Thousand metric tons

Country	1976	1977	1978	1979	1980
Total	72,217	72,104	73,645	74,492	75,512
Japan	10,660	10,762	10,522	10,589	11,106
U.S.S.R.	10,134	9,352	8,930	9,133	9,432
China	5,255	5,852	5,953	5,598	5,816
U.S.A.	3,209	3,141	3,578	3,671	3,797
Peru	4,345	2,537	3,369	3,681	2,732
Norway	3,416	3,541	2,708	2,760	2,504
India	2,174	2,312	2,306	2,340	2,423
Republic of Korea	2,405	2,419	2,351	2,420	2,408
Thailand	1,660	2,190	2,096	1,718	1,651
Denmark	1,912	1,806	1,740	1,738	2,027
Chile	1,409	1,349	1,959	2,697	2,891
Indonesia	1,483	1,572	1,648	1,772	1,859
Korea D.P.R.P.	1,120	1,190	1,260	1,330	1,400
Iceland	992	1,378	1,579	1,661	1,516
Philippin	1,393	1,509	1,580	1,589	1,672
Canada	1,133	1,270	1,401	1,445	1,333
Spain	1,475	1,394	1,380	1,212	1,247
Viet Nam	1,014	1,014	1,014	1,014	1,014
Brazil	653	748	803	855	850
France	806	760	814	770	803
Mexico	572	670	739	925	1,275
Bangladesh	826	835	640	640	650
South Africa	638	605	626	669	651
Poland	750	655	571	601	640
Malaysia	517	619	685	696	737
England and Wales	520	525	548	494	397
Burma	502	519	541	565	585
Argentina	281	392	542	581	399
Nigeria	497	504	519	535	480
Scotland	476	445	456	383	400
Ecuador	298	434	617	644	671

2 CATCH BY SPECIES OF THE WORLD, 1976~1980

Unit: Thousand metric tons

	1976	1977	1978	1979	1980
Total	72,217	72,104	73,645	74,492	75,512
Carps, barbels and other cyprinids	567	577	583	597	617
Tilapias and other cichlids.....	293	351	369	364	367
Miscellaneous freshwater fishes...	5,087	5,148	4,865	5,023	5,213
Sturgeons, padolefishes, etc.	31	32	28	29	29
River eels	67	70	75	85	91
Salmons, trouts, smelts, etc.	556	632	623	751	770
Shads, milkfishes, etc.	766	768	813	770	818
Miscellaneous diadromous fishes ..	122	144	143	155	125
Flounders, halibuts, soles, etc. .	1,136	1,084	1,257	1,146	1,084
Cods, hakes, haddocks, etc.	12,130	10,595	10,409	10,609	10,720
Redfishes, bases, congers, etc. ..	5,143	5,716	5,596	5,358	5,247
Jacks, mullets, sauries, etc.	7,277	8,710	8,094	7,951	7,338
Herrings, sardines, anchovies etc.	15,249	12,899	14,350	15,719	16,225
Tunas, bonitos, billfishes, etc. .	2,323	2,391	2,516	2,385	2,490
Mackerels,sneks,cutlassfishes,etc.	3,842	4,080	4,765	4,415	4,226
Sharks, rays, chimaeras, etc.	556	563	590	580	583
Miscellaneous marine fishes	7,689	7,744	7,619	7,064	7,582
Freshwater crustaceans	84	80	86	91	83
Sea-spiders, crabs, etc.	672	693	767	837	848
Lobsters, spiny-rock lobsters,etc.	98	97	106	111	108
Squat-lobsters, nephrops, etc. ...	106	88	85	77	56
Shrimps, prawns, etc.	1,500	1,672	1,648	1,561	1,681
Krill,plankonic crustaceans,etc. .	3	123	143	387	425
Miscellaneous marine crustaceans..	53	56	50	71	66
Freshwater molluses	150	161	203	255	267
Abalones, winkles, conchs, etc. ..	66	72	73	72	87
Oysters	904	860	899	873	973
Mussels	541	619	566	582	614
Scallops, pectens, etc.	323	406	429	399	364
Clams, cockles, arkshells, etc. ..	1,032	1,132	1,117	1,053	1,177
Squids,cuttlefishes,octopuses,etc.	1,209	1,233	1,342	1,559	1,572
Miscellaneous marine molluscs	167	151	143	144	165
Porpoises, dolphins, etc.	4	4	3	3	165
Miscellaneous aquatic mammals	167	151	143	157	
Frogs and other amphibians	1	1	1	1	1
Turtles and other reptiles	7	7	10	7	6
Sea-quirts and other tunicates ...	8	7	6	4	6
Horseshoe crabs and other arachnoids	1	0	0	0	0
Sea-urchins, sea-cucumbers, etc....	59	61	62	66	56
Miscellaneous aquatic invertebrates	40	101	75	73	74
Pearls,mother-of-pearl,shells,etc.	6	8	6	6	6
Corals	0	0	0	0	0
Sponges	0	0	0	0	0
Aquatic bird guano, eggs, etc. ...	4	39	34	36	30
Brown seaweeds	1,767	2,307	2,346	2,357	2,403
Red seaweeds	491	527	662	772	825
Green seaweeds and other algae ...	3	2	3	3	9
Miscellaneous aquatic plants	87	97	86	90	79

APPENDIX

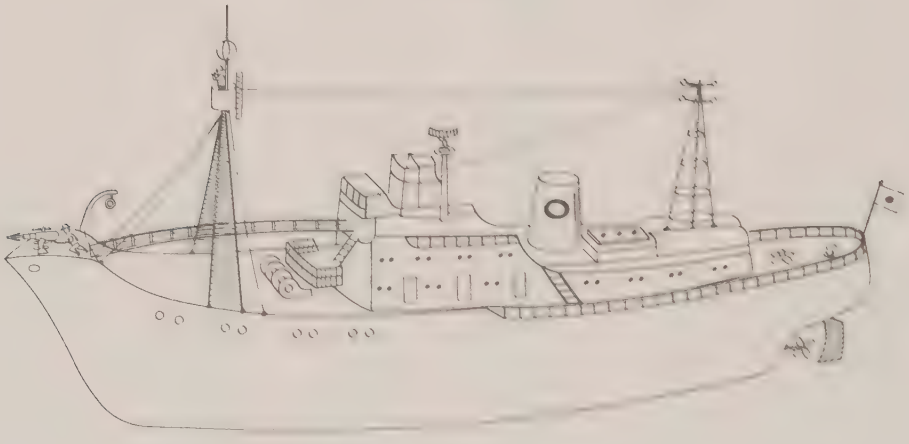
ILLUSTRATION OF TYPES OF FISHERIES

1. Mother Ship Type Whaling

Catcher boat

Mother ship

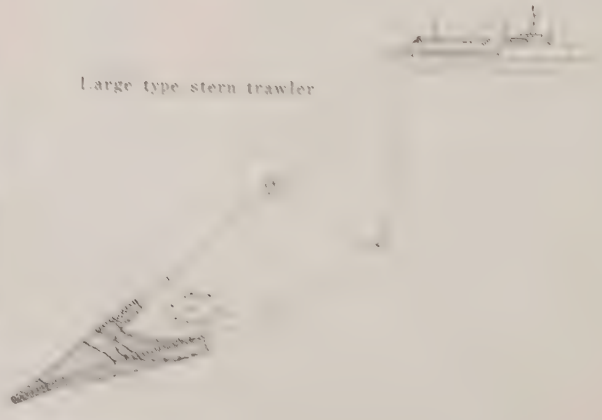
Catcher boat



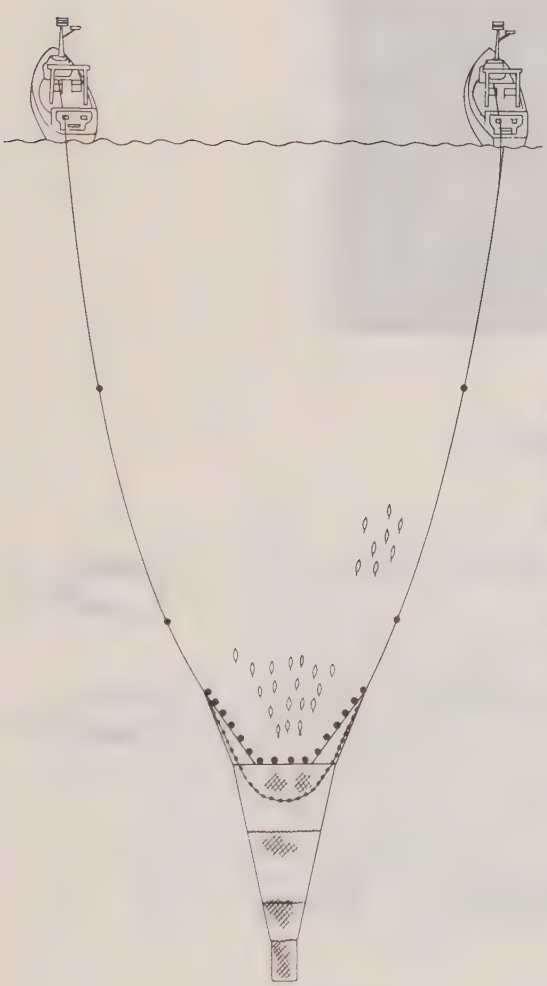
2. Distant Water Trawl

1500 Tonnage type stern trawler

Large type stern trawler



3. Large Trawl in East China Sea

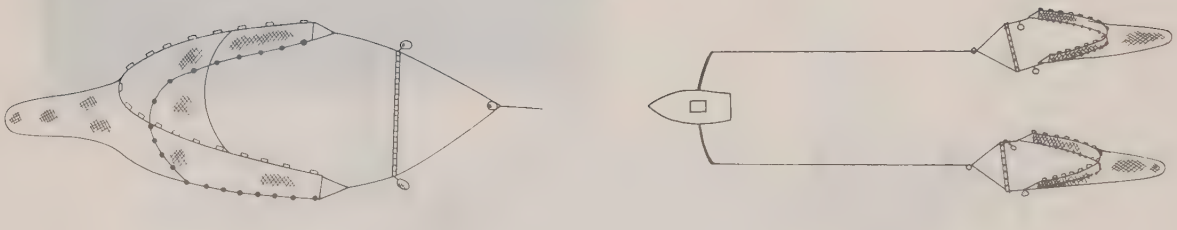


4. Medium Trawl

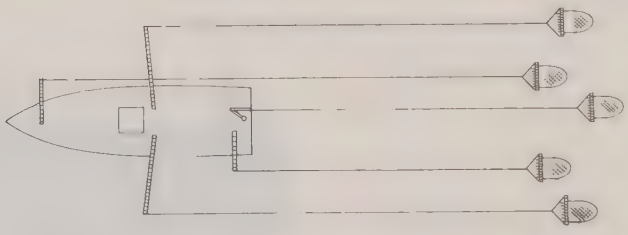
124 Tonnage type stern trawler

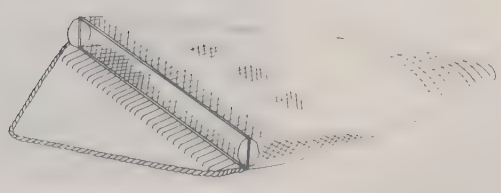
5. Small Trawl

Small trawler for shrimps

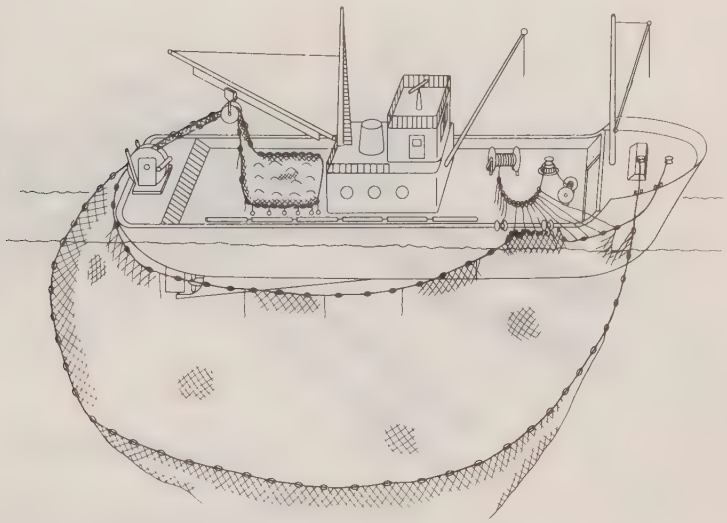


6. Small Trawl With Drag Nets for Scalop

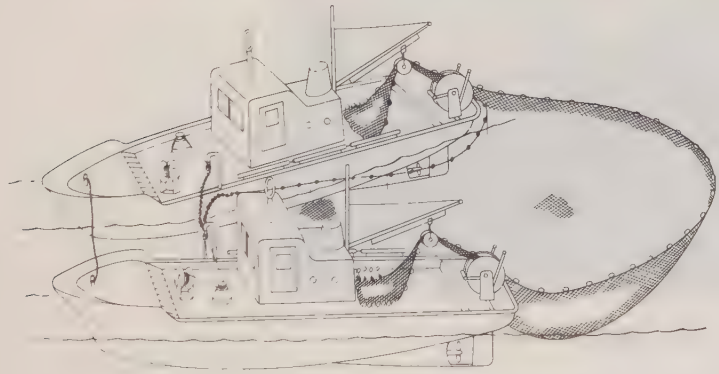




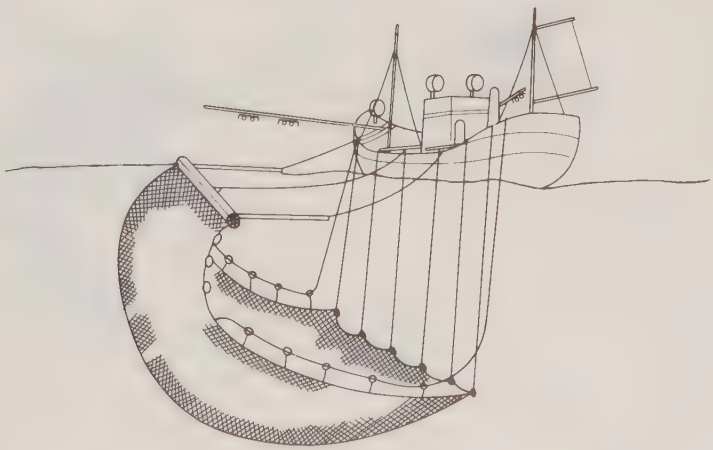
7. Purse Seine (One Boat Operation)



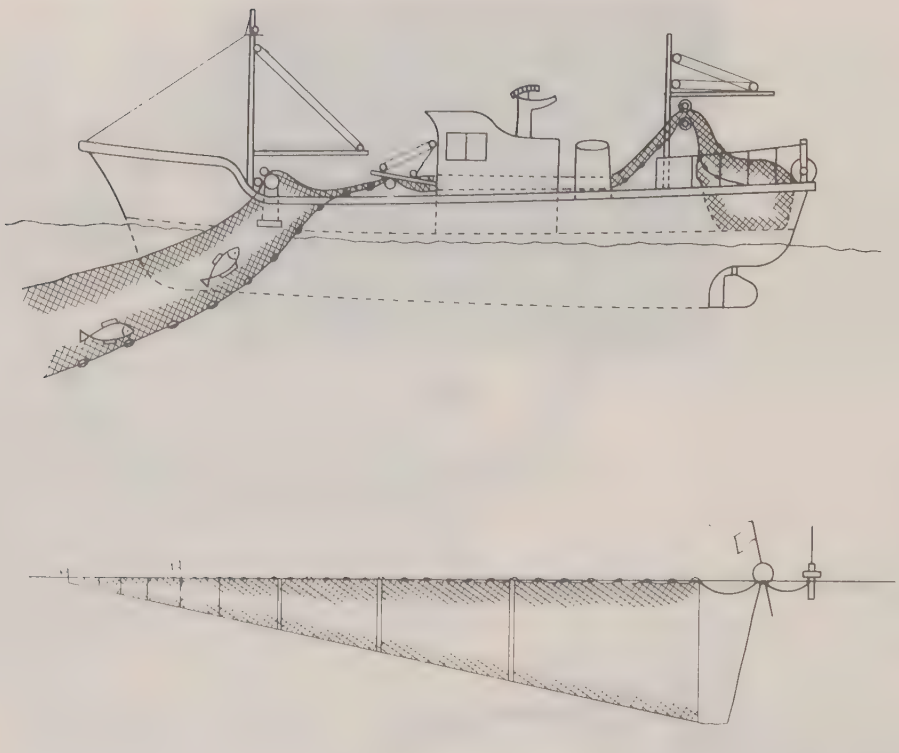
8. Purse Seine (Two Boats Operation)



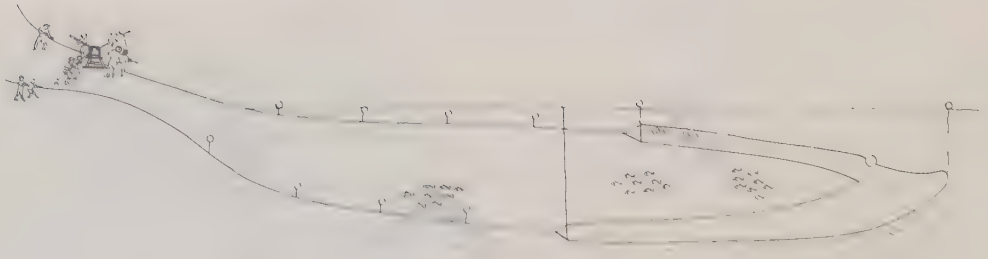
9. Saury Stick-Held-Dip Net



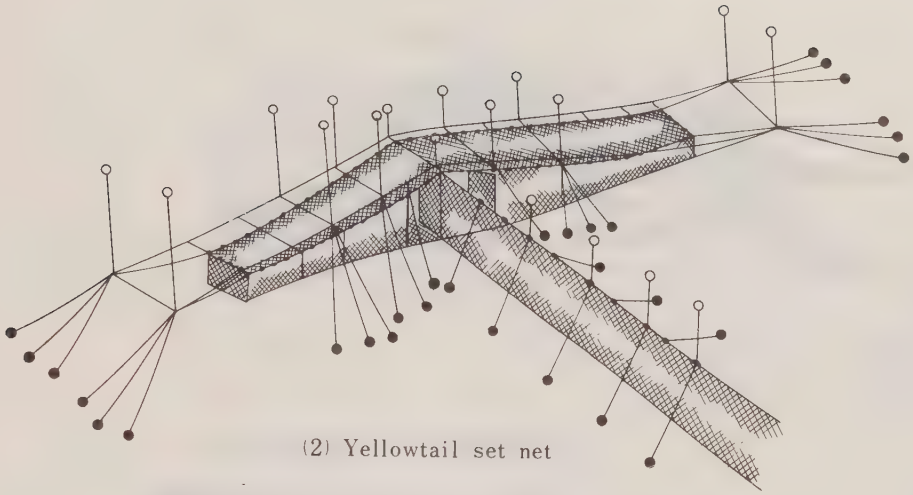
10. Salmon Drift Gill Net



11. Beach Seine

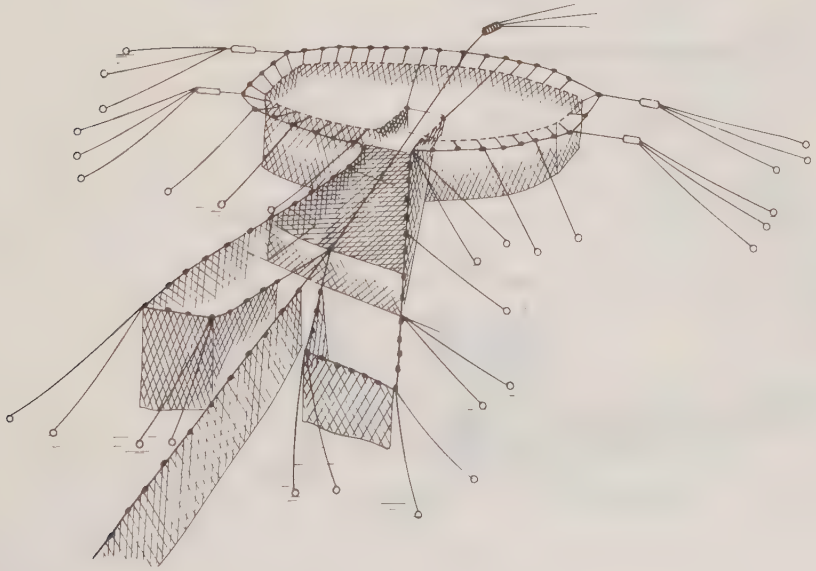


(1) Salmon set net

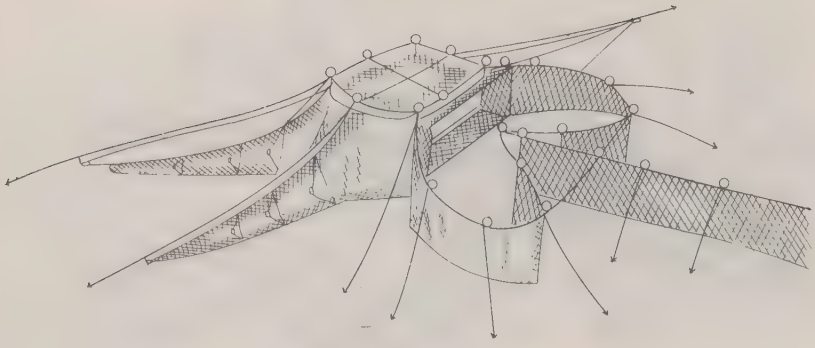


(2) Yellowtail set net

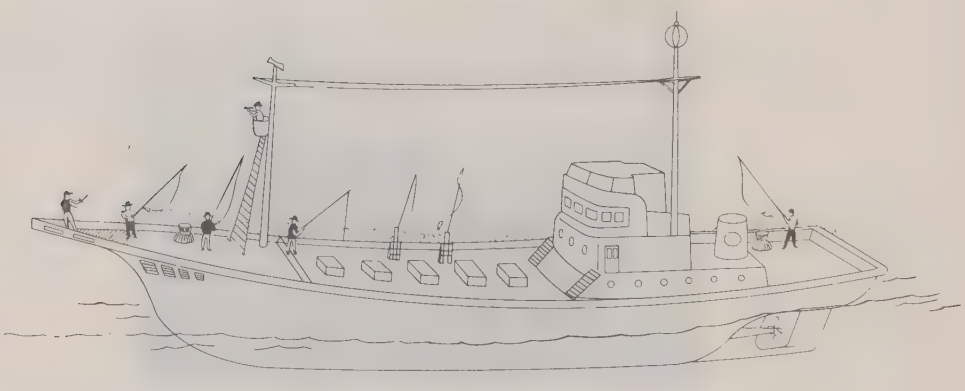
(3) Sardine set net



12. Small Set Net

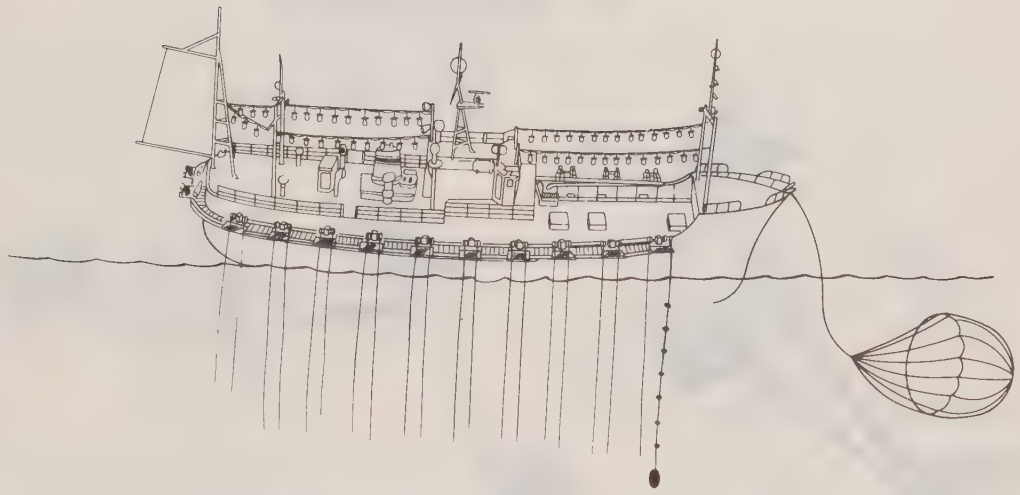


13. Skipjack Pole-and-Line



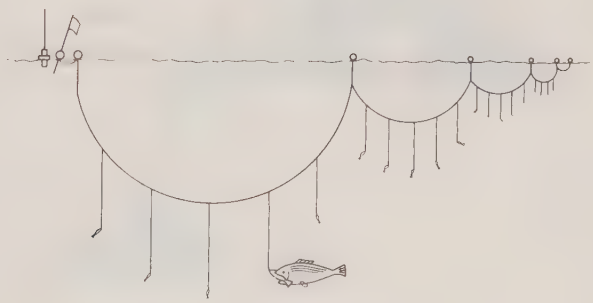
14. Mackerel Pole-and-Line

15. Squid Angling

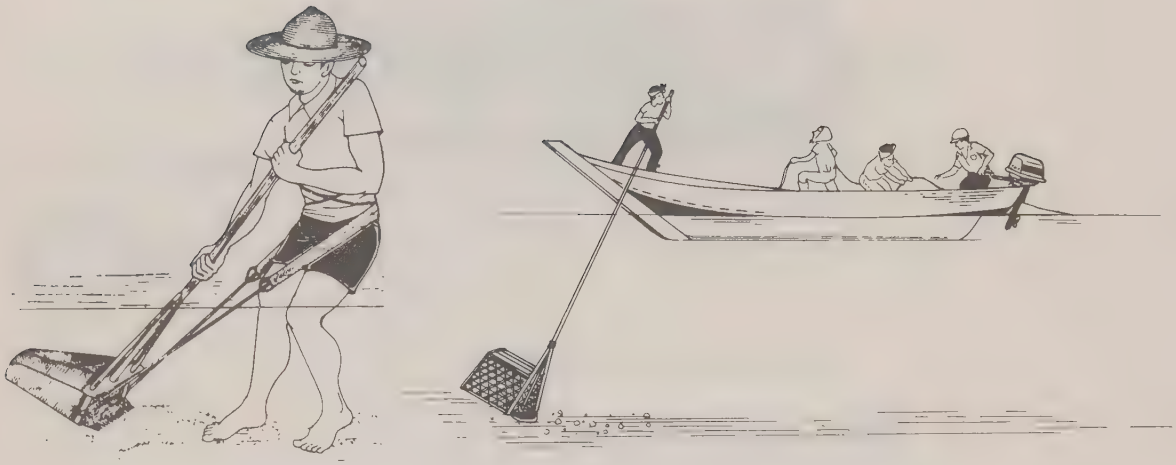


16. Other Angling (Trolling)

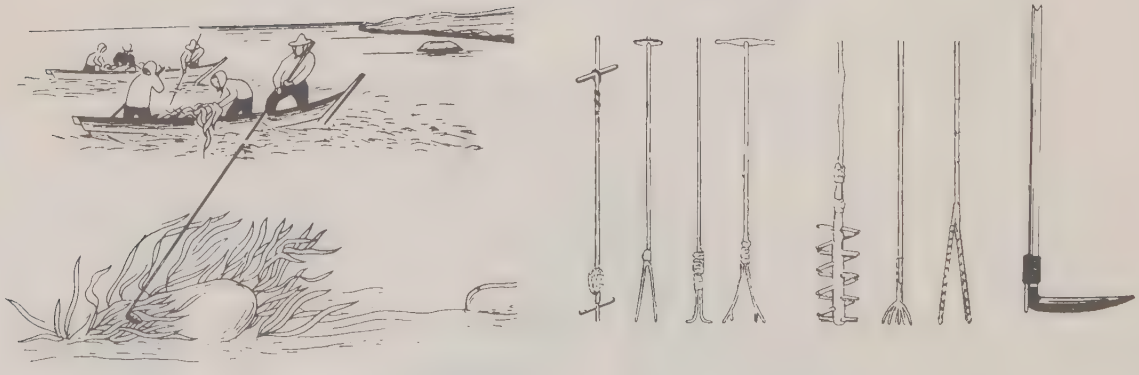
17. Tuna Long Line



18. Shellfish Collecting

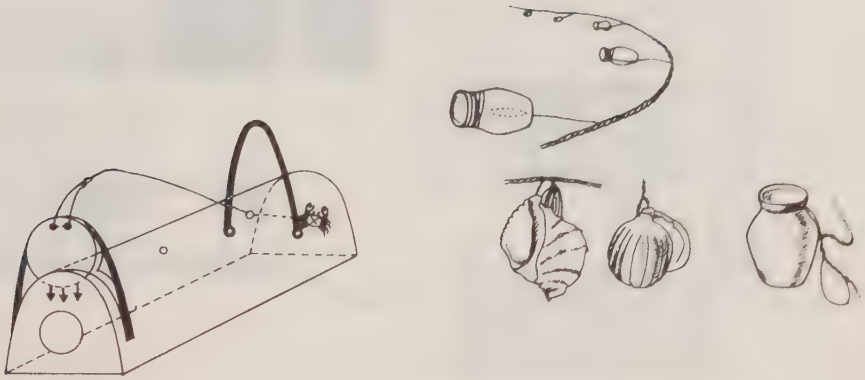


19. Seaweed Collecting

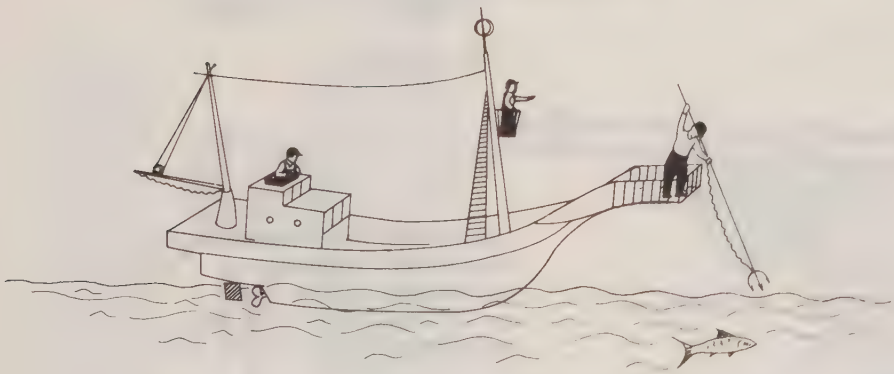


20. Other Fisheries

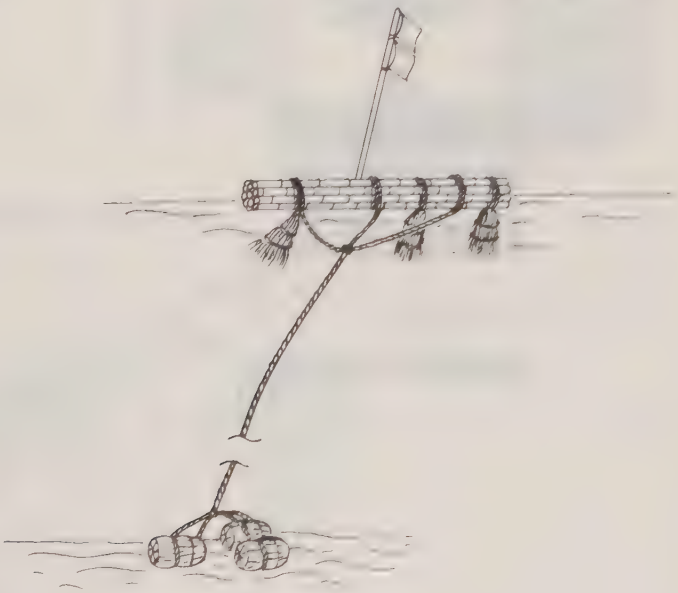
(1) Traps for octopus



(2) Dart

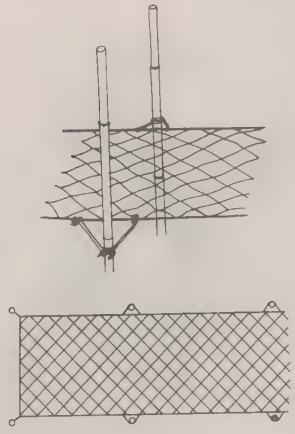


(3) "Tuke" luring fishery



21. "Nori" Laver Culture

"Nori" laver culture by stakes

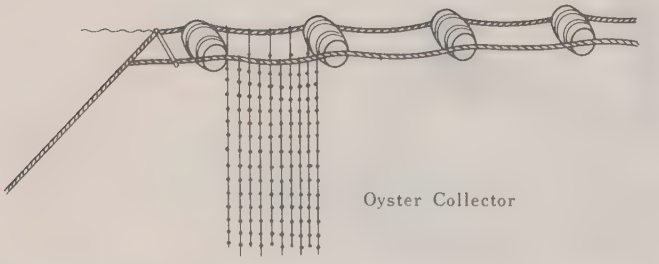


Spore collector with bamboo screen

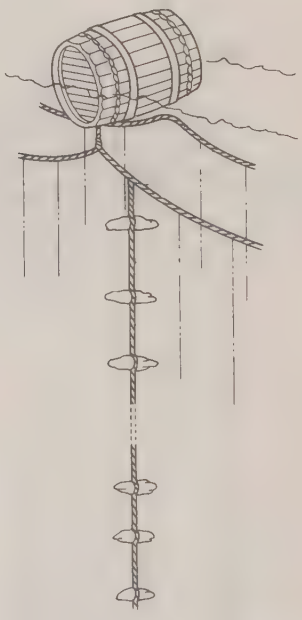
"Nori" larver culture by floating nets

22. Oyster Culture

Long line type

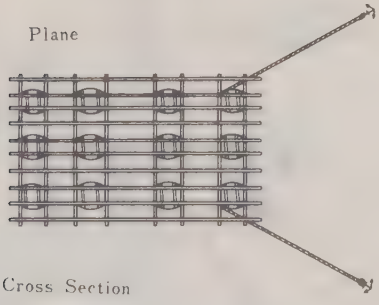


Oyster Collector

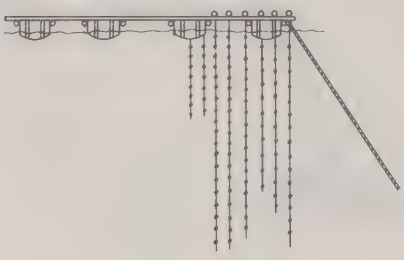


Raft hanging type

Plane

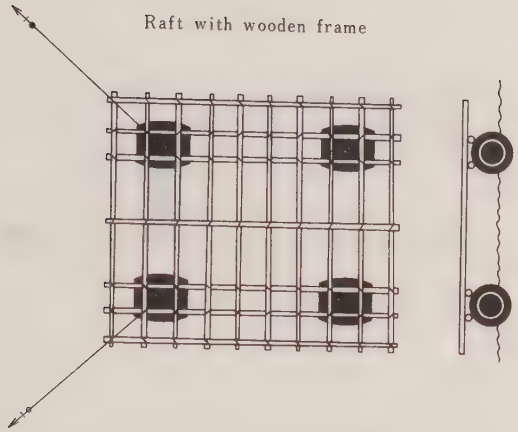


Cross Section

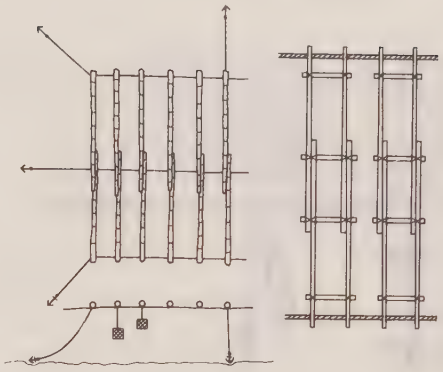


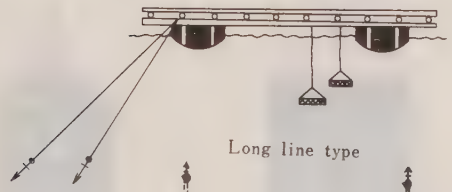
23. Pearl Culture

Raft with wooden frame

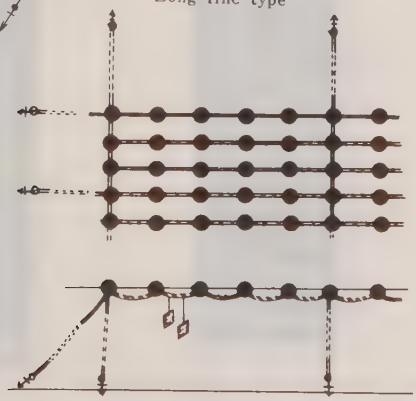


Wooden raft

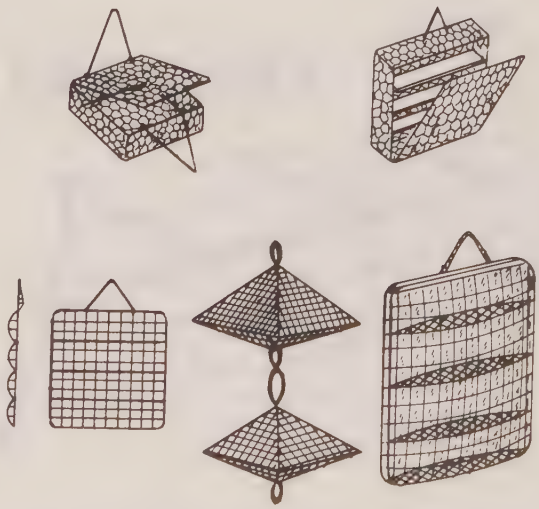




Long line type

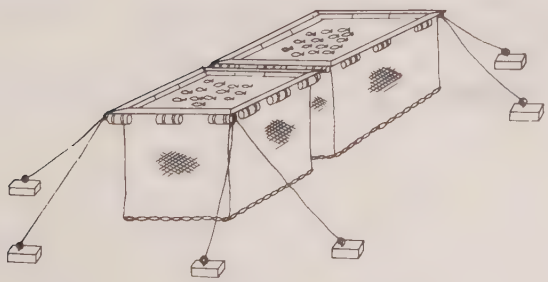


Types of baskets



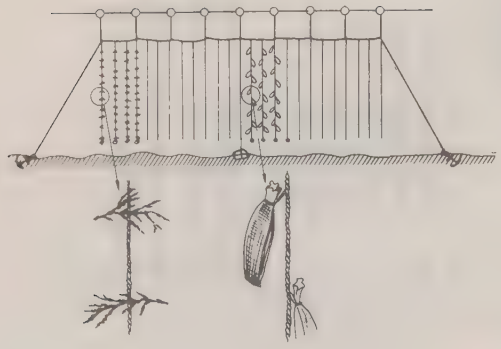
24. Yellowtail Culture

Net cage type

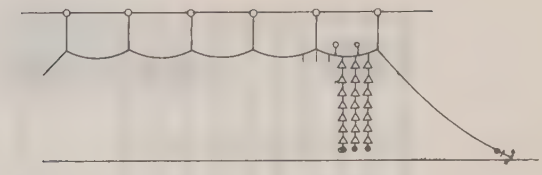


25. Scalop Culture

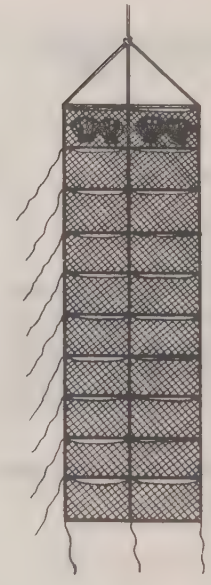
Seed collector



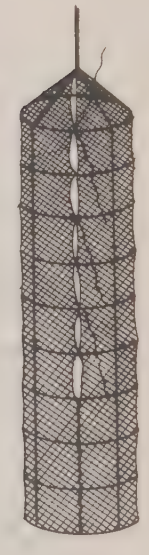
Long line type



Pocket net type

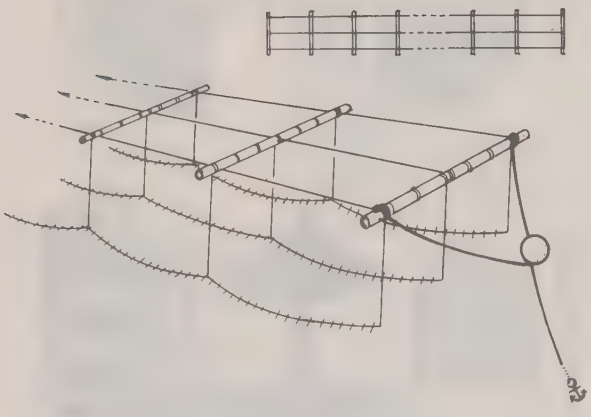


Basket type

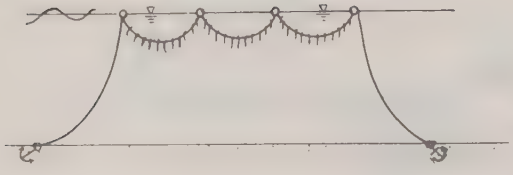


26. "Wakame" Seaweed Culture

Raft type



Long line type



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